

QL
566
.M43
1997

Scientific Papers

Natural History Museum
The University of Kansas

25 July 1997

Number 1:1-81

Genus-Group Names of Bees and Supplemental Family-Group Names¹

By

CHARLES D. MICHENER

Division of Entomology, Natural History Museum

The University of Kansas

Lawrence, Kansas 66045, USA

CONTENTS

ABSTRACT	1
INTRODUCTION	2
ACKNOWLEDGMENTS	2
GENUS-GROUP NAMES	2
SUPPLEMENT TO THE LIST OF FAMILY-GROUP NAMES	52
LITERATURE CITED	63
ADDENDUM	81

ABSTRACT This paper includes an alphabetical list of generic and subgeneric names that have been proposed for bees, with bibliographic references and indications of type species. Synonymies are not indicated, but the major group (family, subfamily, tribe or sometimes merely "fossil") is indicated for each. Synonymies will be indicated in a future account of world bees. New nomenclatural details include the following: *Apis thoracica* Fabricius designated as type species of *Melandrena* Pérez; *Paracella* new subgenus of *Megachile*, with *M. semivenusta* Cockerell as type species, for *Paracella* Pasteels, a name proposed without designation of a type species; *Callistochlora* new name for *Callochlora* Moure, 1964, not Packard, 1864; *Gyrodromella* new name for *Gyrodroma* Thomson, 1872, not Klug, 1807; and *Lithurgus* Berthold, 1827, given preference over the French vernacular *Lithurge* Latreille, 1825. The list of family-group names in bees is corrected and up-dated.

Key words: Apoidea; Generic and Family names; Type species.

¹ Contribution Number 3167 from the Snow Entomological Division Natural History Museum, and Department of Entomology, The University of Kansas

QL
566
.M43
1997

Scientific Papers

Natural History Museum
The University of Kansas

25 July 1997

Number 1:1-81

Genus-Group Names of Bees and Supplemental Family-Group Names¹

By

CHARLES D. MICHENER

Division of Entomology, Natural History Museum

The University of Kansas

Lawrence, Kansas 66045, USA

CONTENTS

ABSTRACT	1
INTRODUCTION	2
ACKNOWLEDGMENTS	2
GENUS-GROUP NAMES	2
SUPPLEMENT TO THE LIST OF FAMILY-GROUP NAMES	52
LITERATURE CITED	63
ADDENDUM	81

ABSTRACT This paper includes an alphabetical list of generic and subgeneric names that have been proposed for bees, with bibliographic references and indications of type species. Synonyms are not indicated, but the major group (family, subfamily, tribe or sometimes merely "fossil") is indicated for each. Synonyms will be indicated in a future account of world bees. New nomenclatural details include the following: *Apis thoracica* Fabricius designated as type species of *Melandrena* Pérez; *Paracella* new subgenus of *Megachile*, with *M. semivenusta* Cockerell as type species, for *Paracella* Pasteels, a name proposed without designation of a type species; *Callistochlora* new name for *Callochlora* Moure, 1964, not Packard, 1864; *Gyrodromella* new name for *Gyrodroma* Thomson, 1872, not Klug, 1807; and *Lithurgus* Berthold, 1827, given preference over the French vernacular *Lithurge* Latreille, 1825. The list of family-group names in bees is corrected and up-dated.

Key words: Apoidea; Generic and Family names; Type species.

¹Contribution Number 3167 from the Snow Entomological Division Natural History Museum, and Department of Entomology, The University of Kansas

INTRODUCTION

The last list of genus-group names of bees was that of Sandhouse (1943). Since that time many new taxa have been described; there were about 977 entries in her list, compared with about 2057 herein. It is of some interest to examine the entire list from the viewpoint of production of genus-group names or actual entries in the list, including *nomina nuda* and the like. From the initiation of Linnaean nomenclature until the end of 18th Century, five generic names were proposed for bees, *Andrena*, *Apis*, *Eucera*, *Hylaeus*, and *Nomada*. But for the first decade of the next century, 1800 to 1809, there are 66 entries. The result of a tabulation by decade, from 1800 to the present, is shown in Table 1. In a reevaluation in preparation, I expect to recognize about 867 genera and subgenera.

Melittologists are sometimes criticized for the extensive use of subgenera, because species-groups, named informally with species names, could be used instead of subgenera. Such a procedure would avoid burdening the literature with numerous subgeneric names with their associated formalities such as type species, problems of homonymy, etc. Such a criticism is justified for certain groups of bees, especially in certain regions of the world.

I believe strongly, however, that large genera are commonly practical and desirable. Nearly all biologists have some idea of what is meant by generic names like *Drosophila*, *Culex*, and *Anopheles*, and many would recognize major bee genera like *Andrena* or *Megachile*. If the subgenera of each of these were elevated to generic rank, the average biologist would often lose track of the sort of organism involved. For many large genera with hundreds or thousands of species, the choice is not between recognizing the genus with subgenera vs. the genus with species groups. It is between recognizing the genus with subgenera vs. several or many genera, because many of the current subgenera are quite different from one another, sometimes recognizable in flight, and many specialists prefer to recognize them as genera. I prefer to retain inclusive genera, for the reason indicated above. These decisions, however, are subjective regardless of one's views on systematic methodology. Some recent bee specialists have used generic names in much the same way that I would use tribal names. More, however, split "excessively," Robertson (1918b) being one of the first to be overtly and purposely a "splitter."

One of the advantages of subgenera is that they need not be cited, i.e., unlike genera, which are required, they

Table 1. Genus-group names proposed for bees, by decade.

Decade	Number of names	Decade	Number of names
1800-09	66	1900-09	232
1810-19	11	1910-19	115
1820-29	26	1920-29	92
1830-39	16	1930-39	153
1840-49	24	1940-49	150
1850-59	48	1950-59	167
1860-69	25	1960-69	281
1870-79	39	1970-79	141
1880-89	46	1980-89	210
1890-90	125	1990-96*	82

*Note that this covers only the period 1990-1996.

are optional parts of scientific names of organisms. Thus *Megachile (Eutricharaea) rotundata* can also be written *Megachile rotundata*. Anyone who wishes can simply ignore subgeneric names. It is fortunate that much of the activity of excessive splitters can therefore be ignored by those who wish to do so; this is more difficult when the taxa are called genera.

The section on family-group names is a supplement to an earlier account (Michener, 1986a) that dealt with the authorship and dating of names proposed from the subtribal to superfamily level. This section is limited to new names, proposed since 1986, and corrections relating to older names.

Abbreviations used are as follows: Code = International Code of Zoological Nomenclature; Commission = International Commission on Zoological Nomenclature.

ACKNOWLEDGMENTS

I am especially indebted to Virginia H. Ashlock for painstaking and long continued library and editing work associated with preparation of this paper. Mary H. Michener helped in tabulating and checking information. I am also indebted to Luisa Ruz and Arturo Roig-Alsina who called my attention to certain usages of family-group names. Michael S. Engel and Donald B. Baker have examined the manuscript and corrected certain errors. This paper is a product of National Science Foundation grant DEB 9302186.

GENUS-GROUP NAMES

In this section, genus-group names are listed with authors, dates, and pages of publication, thus references to the Literature Cited. The type species and manner of designation of each are then indicated, including the bibliographic references in all cases of subsequent designation. Of course I have tried to list the earliest such type designa-

nation in each case; later type designations, sometimes not distinguishable from mere listing of the type species, have no nomenclatural significance and may have been missed or ignored. If a name was originally proposed as a subgenus, the genus under which it was placed is indicated in square brackets. Finally, for convenience of users, the cur-

rent tribe, subfamily, or family name is provided (in bold-face type) for each entry, following the classification put forward by Roig-Alsina and Michener (1993) and Alexander and Michener (1995).

I have cited the names of type species in their original combinations. This means that I have ignored the complexities that could have been cited when an author, in designating a type species, placed it in a genus different from the original one or cited an erroneous author. This policy is generally in accord with the Code, ed. 3, Art. 67d, f.

Of course there have been errors, especially probable printers' errors, from time to time. For example, Westwood (1840a) published *Caelioxys* instead of *Coelioxys*. Except when such errors have been repeated or have nomenclatural significance, I have not listed them. Also, nomina nuda that have not been recognized as relating to a particular taxon are omitted.

I follow Sandhouse (1943) in using the term monobasic to indicate that there was only one originally included species, and autobasic to mean that a replacement name automatically has the same type species as its antecedent, usually preoccupied, name. When a genus is monobasic and in the original publication the single species was also designated as the type species, I use only the expression "by original designation," since the positive action by the author of the name seems more significant than the mere fact that there was but one originally included species.

Sandhouse (1943) used the term isogenotypic for taxa having the same type species. Since genotype is no longer used to mean the type species of a genus, I have changed the term to isotopic. When two generic names are isotopic, they are objectively synonymous. Isotopic by synonymy, however, means that the taxa are the same only by synonymy of their type species, which is usually subjective. The synonymy of such generic names therefore may depend on the accuracy of the synonymy of the type species.

Sandhouse repeatedly cited "Blanchard, 1849" as a source of type designations. Thanks to Cowan, 1976 (see Blanchard, 1845–1849), we now know that the parts of this work (Cuvier's Disciples' edition) on bees were published in 1845, 1846, and 1847. When I first examined it, I concluded that this work did not contain type designations although a single species was listed for each genus in the explanations of the plates. However, as pointed out to me by Dr. D. B. Baker, the title page contains in small type, the notation "accompagné de planches gravées, représentant les types de tous les genres,...." Thus, types were designated, but as of the date of publication of the title pages, 1849. I indicate the year of publication of the plates in parentheses. The authors' names attached to species in Blanchard's explanations of plates are commonly wrong; as elsewhere, I have ignored such errors and cited the correct authors.

Another source of confusion has been two articles published in 1807 in Illiger's Magazin für Insektenkunde.

The first (Illiger, 1807) shows no author either in the table of contents of the volume or in the text itself, an indication that it was written by Illiger. The second (Klug, 1807b) is attributed to Klug in both places. The two articles were published simultaneously; page 199 of the first article is on the same leaf as page 200 of the second. Some of the same generic names were proposed in both articles. All of them have been attributed in the past to Klug, and Illiger's article in most cases credits Klug with such names. Given that publication was simultaneous, I have adjusted the references to retain Klug's authorship, in different ways in different cases because of differing treatments in the two articles concerned.

Westwood (1840a) listed a typical British species for each genus. These have been taken as type designations, in accordance with Opinion 71 of the Commission (1922). Westwood listed synonymous generic names in his accounts of many genera, often with the notation "p." for "part." It seems clear that he was merely listing synonyms and that his type designations did not apply to these synonymous names.

Méhelj's monumental work (1935) on palearctic *Hylaeus* included descriptions of various subgenera. When monobasic, such subgenera are valid, but those including more than one species are invalid because of his failure to designate a type species, a requirement after 1930 (Code, 3rd ed., Art. 13b). Popov (1939) rectified the situation by designating type species as needed, except for certain of Méhelj's subgenera which he (and subsequent authors) regarded as junior synonyms. Popov's format included a heading for a subgenus, followed by a list of synonyms, descriptive material, and then a statement of the type species. It is clear that his intention was to designate a type species for the subgenus indicated in the heading. Sandhouse (1943), however, considered that same species to be the type of each of the synonymized names, resulting in the same type species for more than one of Méhelj's subgenera. Popov's paper cannot be read to justify this; he did not designate type species for Méhelj's names that he considered synonyms. Sandhouse herself could be interpreted to have designated type species for the junior synonyms, although such types would not be species included under those names by Méhelj. Thus, for example, *Imperfecta* Sandhouse, 1943, would have as type species *Hylaeus brevicornis* Nylander (a species of *Dentigera*); it would not be the same as *Imperfecta* Méhelj, and therefore, not being accompanied by a description or relevant bibliographic reference, would be a nomen nudum. Moreover, Sandhouse's type designations do not validate these subgeneric names, since she considered these names to be junior synonyms and they were not adopted as the names of taxa before 1961 (Code, 3rd ed., Art. 11c). They thus remain invalid. The names involved are *Auricularia*, *Imperfecta*, *Pectinata*, *Pseudobranchiata*, and *Trichota*. All this has no effect whatever on the current nomenclature and I have included these names below only as proposed by Méhelj, not as attributed to Popov or Sandhouse.

- Abda* Sandhouse, 1943:521, replacement for *Anthedon* Robertson, 1900. Type species: *Melissodes comptus* Cresson, 1878, autobasic. See *Anthedonia*. **Eucerini**.
- Abromelissa* Snelling and Brooks, 1985:23. Type species: *Melissa lendiana* Friese, 1910, by original designation. **Eriococidini**.
- Abrupta* Méhelý, 1935:32, 137. Type species: *Hylaeus cornutus* Curtis, 1831, monobasic. Sandhouse (1943) attributed *Abrupta* to Popov (1939), perhaps because Méhelý, while including only one species, listed another specific name as a synonym. She may thus have considered that Méhelý included two species without designating a type. [Prosopis]. **Hylaeinae**.
- Acalcaripes* Pesenko, 1984:347. Type species: *Halictus patellatus* Morawitz, 1873, by original designation. [Halictus]. **Halictini**.
- Acamptopoeum* Cockerell, 1905a:320. Type species: *Camptopoeum trifasciatum* Spinola, 1851, sensu Cockerell, 1905a = *Camptopoeum submetallicum* Spinola, 1851, monobasic. Because of Cockerell's misidentification, the type species was designated as *Camptopoeum submetallicum* Spinola, 1851, by Commission Opinion 1759 (1994). **Panurginae**.
- Acanthalictus* Cockerell, 1924a:184. Type species: *Halictus dybowskii* Radoszkowski, 1877, by original designation. **Halictini**.
- Acanthidium* Michener and Griswold, 1994a:305. Type species: *Acanthidium batrae* Michener and Griswold, 1994 = *Dianthidium flavoclypeatum* Gupta, 1993, by original designation. **Anthidiini**.
- Acanthomelecta* Lieftinck, 1972:316. Type species: *Crocisa bicuspis* Stadelmann, 1898, by original designation. **Melectini**.
- Acanthonomada* Schwarz, 1966:383. Type species: *Nomada odontophora* Kohl, 1905, by original designation. **Nomadini**.
- Acanthopus* Klug, 1807, in Illiger, 1807:199; Klug, 1807b:226. Type species: *Apis splendida* Fabricius, 1793 = *Apis palmata* Olivier, 1789, monobasic. *Acanthopus* is consistently attributed to Klug in the literature. It was published in two consecutive articles in the same journal and thus simultaneously: the first was by Illiger, who, however, attributed the name to Klug; the second was by Klug. Dalla Torre (1896) listed both references under the species but attributed the generic name to Klug, and may therefore be regarded as the first reviser, and to have decided the question as to authorship of *Acanthopus*. **Eriococidini**.
- Acanthosmia* Thomson, 1872:233; no species. Species first included by Schmiedeknecht, 1885:21. Type species: *Osmia montivaga* Morawitz, 1872, by designation of Sandhouse, 1943:522. [Osmia]. **Osmiini**.
- Acanthosmiades* Titus, 1904b:101, incorrect subsequent spelling of *Acanthosmioides* Ashmead, 1899. **Osmiini**.
- Acanthosmioides* Ashmead, 1899a:76. Type species: *Osmia odontogaster* Cockerell, 1897, by original designation. **Osmiini**.
- Acentron* Mitchell, 1934:307. Type species: *Megachile albifarsis* Cresson, 1872, by original designation. [Megachile]. **Megachilini**.
- Aceratosmia* Schmiedeknecht, 1885:19. Type species: *Osmia emarginata* Lepeletier, 1841, by designation of Sandhouse, 1939:9. [Osmia]. **Osmiini**.
- Aciandrena* Warncke, 1968:62. Type species: *Andrena aciculata* Morawitz, 1886, by original designation. [Andrena]. **Andreninae**.
- Ackmonopsis* Brooks, 1988:508. Type species: *Anthophora mimadvena* Cockerell, 1916, by original designation. [Amegilla]. **Anthophorini**.
- Acritocentris* Snelling, 1974:36. Type species: *Centris ruthannae* Snelling, 1966, by original designation. [Centris]. **Centridini**.
- Acrocoelioxys* Mitchell, 1973: 71. Type species: *Coelioxys otomita* Cresson, 1878, by original designation. [Coelioxys]. **Megachilini**.
- Acrosmia* Michener, 1947:298. Type species: *Hoplitis plagiostoma* Michener, 1947, by original designation. [Hoplitis]. **Osmiini**.
- Acroxylocopa* Hurd and Moure, 1963:236. Type species: *Xylocopa capitata* Smith, 1854, by original designation. [Xylocopa]. **Xylocopini**.
- Acunomia* Cockerell, 1930, in Cockerell and Blair, 1930:11. Type species: *Nomia nortoni* Cresson, 1868, by original designation. [Nomia]. **Nomiinae**.
- Adanthidium* Moure, 1965:29. Type species: *Anthidium texanum* Cresson, 1878, by original designation. **Anthidiini**.
- Addendella* Mitchell, 1980:24. Type species: *Megachile addenda* Cresson, 1878, by original designation. [Megachile]. **Megachilini**.
- Adventoribombus* Skorikov, 1922a:25. Type species: *Apis sylvarum* Linnaeus, 1761, by designation of Yarrow, 1971:28. *Agrabombus* [sic] *adventor* Skorikov, 1914 = *B. filchnerae* Vogt, 1908, designated by Sandhouse, 1943:522, was not originally included. [Agrobombus]. Isotypic with *Thoracobombus*. **Bombini**.
- Aeganopria* Moure, 1949a:442. Type species: *Lonchopria nivosa* Vachal, 1909, by original designation. **Colletinae**.
- Aenandrena* Warncke, 1968:64. Type species: *Andrena aeneiventris* Morawitz, 1872, by original designation. [Andrena]. **Andreninae**.
- Aethammobates* Baker, 1994:155. Type species: *Aethammobates prionogaster* Baker, 1994, by original designation. **Ammobatoidini**.
- Aethechlorula* Moure and Hurd, 1987:275. Type species: *Augochlora matucanensis* Cockerell, 1914, by original designation. [Augochlora]. **Augochlorini**.
- Aframegilla* Popov, 1950b:260. Type species: *Anthophora nubica* Lepeletier, 1841, by original designation. [Amegilla]. **Anthophorini**.
- Afranthidium* Michener, 1948a:24. Type species: *Hypanthidium halophilum* Cockerell, 1936 = *Anthidium reicherti* Brauns, 1929, by original designation. [Anthidium]. **Anthidiini**.

- Afrodielictus* Pauly, 1984b:142. Type species: *Halictus bellulus* Vachal, 1909, by original designation. [Lasioglossum]. **Halictini.**
- Afrodifourea* Ebmer, 1984:362. Type species: *Dufourea pumica* Ebmer, 1976, by original designation. [Dufourea]. **Rophitinae.**
- Afroheriades* Peters, 1970:157. Type species: *Pseudoheriades primus* Peters, 1970, by original designation. [Pseudoheriades]. **Osmiini.**
- Afromelecta* Lieftinck, 1972:309. Type species: *Crocisa fulvohirta* Cameron, 1905, by original designation. **Melectini.**
- Afronomia* Pauly, 1990:126. Type species: *Nomia picardi* Gribodo, 1894, by original designation. **Noniinae.**
- Afrostelis* Cockerell, 1931b:340. Type species: *Afrostelis tegularis* Cockerell, by original designation. **Anthidiini.**
- Afroxylocopa* Hurd and Moure, 1963:264. Type species: *Apis nigrita* Fabricius, 1775, by original designation. [Xylocopa]. **Xylocopini.**
- Agaeischia* Moure and Michener, 1955b:273. Type species: *Eucera patellicornis* Ducke, 1910, by original designation. [Gaesischia]. **Eucerini.**
- Agandrena* Warneke, 1968:56. Type species: *Apis agilissima* Scopoli, 1770, by original designation. [Andrena]. **Andreninae.**
- Agapanthinus* LaBerge, 1957:35. Type species: *Melissodes callophila* Cockerell, 1923, by original designation. **Eucerini.**
- Agapostemon* Guérin-Méneville, 1844:448. Type species: *Apis femoralis* Guérin-Méneville, 1844 = *Apis viridula* Fabricius, 1793, monobasic. [Andrena]. **Halictini.**
- Agapostemonoides* Roberts and Brooks, 1987:364. Type species: *Agapostemonoides hurdi* Roberts and Brooks, 1987, by original designation. **Halictini.**
- Agathocerina* Sítíkov and Pesenko, 1988:87. Type species: *Eucera bidentata* Pérez, 1887, by original designation. [Eucera]. **Eucerini.**
- Ageffronnia* Michener, 1981:26. Type species: *Nomia tsavoensis* Strand, 1920, by original designation. **Meganomiinae.**
- Aglaea* Schulz, 1906:258. Unjustified emendation of *Aglaea* Lepeletier and Serville, 1825. **Euglossini.**
- Aglaea* Lepeletier and Serville, 1825:105. Type species: *Aglaea caerulea* Lepeletier and Serville, 1825, monobasic. **Euglossini.**
- Aglaapis* Cameron, 1901b:262. Type species: *Aglaapis brevipennis* Cameron, 1901, monobasic. **Dioxyini.**
- Aglaomelissa* Snelling and Brooks, 1985:25. Type species: *Melissa duckei* Friese, 1906, by original designation. **Ericrocidiini.**
- Agogenohylaeus* Michener, 1965a:148. Type species: *Prosopis nubilosellus* Cockerell, 1910, by original designation. [Amphyllaeus]. **Hylaeinae.**
- Agribombus* Skorikov, 1938a:145, unjustified emendation of *Agrobombus* Vogt, 1911. **Bombini.**
- Agrobombus* Vogt, 1911:52. Type species: *Apis agrorum* Fabricius, 1787 (not Schrank, 1781) = *Apis paschorum* (Scopoli), 1763, by designation of Sandhouse, 1943:523. [Bombus]. **Bombini.**
- Alayoapis* Michener, 1966a:728. Type species: *Megacilissa nigrescens* Cresson, 1869, by original designation. [Caupolicana]. **Caupolicanini.**
- Albocolletes* Warncke, 1978:353. Type species: *Halictus albomaculatus* Lucas, 1849, by original designation. [Colletes]. **Colletinae.**
- Alcidamea* Cresson, 1864:385. Type species: *Alcidamea producta* Cresson, 1864, by designation of Michener, 1941:158. Isotypic with *Autochelostoma* by synonymy. **Osmiini.**
- Alepidosceles* Moure, 1947b:244. Type species: *Ancylotrichis imitatrix* Schrottky, 1909, by original designation. **Emphorini.**
- Alfkenella* Börner, 1919:168. Type species: *Apis quadrifasciata* Villers, 1789, by original designation. Isotypic with *Amegilla*. **Anthophorini.**
- Alfkenomia* Hirashima, 1956:33, replacement for *Epinomia* Alfken, 1939. Type species: *Nomia andrenoides* Vachal, 1903 = *Nomia andrei* Vachal, 1897, autobasic. **Noniinae.**
- Alfkenylaeus* Snelling, 1985:13. Type species: *Hylaeus namaquensis* Cockerell, 1942, by original designation. [Hylaeus]. **Hylaeinae.**
- Allanthidium* Moure, 1947a:21. Type species: *Anthidium rodolfi* Ruiz, 1938, by original designation. **Anthidiini.**
- Allochalicodoma* Tkalcù, 1969:359. Type species: *Chalicodoma lefebvrei* Lepeletier, 1841, by original designation. [Chalicodoma]. Isotypic with *Heteromegachile*. **Megachilini.**
- Alloceroxyys* Tkalcù, 1974a:340. Type species: *Coelioxys afra* Lepeletier, 1841, by original designation. Isotypic with *Coelioxita*. **Megachilini.**
- Allodape* Schulz, 1906:244, unjustified emendation of *Allodape* Lepeletier and Serville, 1825. **Allodapini.**
- Allodape* Lepeletier and Serville, 1825:18. Type species: *Allodape rufogastra* Lepeletier and Serville, 1825, monobasic. **Allodapini.**
- Allodapula* Cockerell, 1934c:220. Type species: *Allodape variegata* Smith, 1854, by original designation. [Allodape]. **Allodapini.**
- Allodapulodes* Michener, 1969:291. Type species: *Allodape palliceps* Friese, 1924, by original designation. [Allodapula]. **Allodapini.**
- Allodioxys* Popov, 1947:87. Type species: *Dioxys schulthessi* Popov, 1936, by original designation. **Dioxyini.**
- Allomacroteria* Timberlake, 1960:131. Type species: *Perdita stephanomeriae* Timberlake, 1954, by original designation. [Perdita]. **Panurginae.**
- Allomegachile* Rebmann, 1970:42. Type species: *Megachile asiatica* Morawitz, 1875, by original designation. [Megachile]. Isotypic with *Euchalicodoma*. **Megachilini.**

- Alloperdita* Viereck, 1917:241. Type species: *Perdita novaeangliae* Viereck, 1907, monobasic. [Perdita]. **Panurginae.**
- Allopsithyrus* Popov, 1931a:136. Type species: *Apis barbutella* Kirby, 1802, by original designation. [Psithyrus]. **Bombini.**
- Alloscirtetica* Holmberg, 1909a:77, replacement for *Sciretetica* Holmberg, 1903. Type species: *Sciretetica antarctica* Holmberg, 1903, autobasic. Isotypic with *Holmbergiapis* and *Neoscirtetica*. **Eucerini.**
- Allosmia* Tkalcú, 1974a:331. Type species: *Osmia rufohirta* Latreille, 1811, by original designation. [Osmia]. **Osmiini.**
- Alloxylocopa* Maa, 1939:155. Type species: *Xylocopa appendiculata* Smith, 1852, by original designation. Nomen nudum because no characters given; see the Code, 3rd ed., Art. 13(a)(i). [Xylocopa]. **Xylocopini.**
- Alloxylocopa* Hurd and Moure, 1963:239. Type species: *Xylocopa appendiculata* Smith, 1852, by original designation. [Xylocopa]. **Xylocopini.**
- Alocandrena* Michener, 1986c:68. Type species: *Alocandrena porteri* Michener, 1986, by original designation. **Andreninae.**
- Alphaneura* Gray, 1832:pl. 111, alternative for *Aphaneura* Gray. Type species: *Aphaneura rufescens* Gray, autobasic. **Meliponini.**
- Alpigenibombus* Skorikov, 1938a:145, unjustified emendation of *Alpigenobombus* Skorikov, 1914. **Bombini.**
- Alpigenobombus* Skorikov, 1914a:128. Type species: *Alpigenobombus pulcherrimus* Skorikov, 1914 = *Bombus kashmirensis* Friese, 1909, by designation of Williams, 1991:65. *Bombus alpigenus* Morawitz, designated as the type species by Frison, 1927:54, was not an originally included species; see Williams, 1991. [Bombus]. **Bombini.**
- Alpinibombus* Skorikov, 1937:53, unjustified emendation of *Alpinobombus* Skorikov, 1914. **Bombini.**
- Alpinobombus* Skorikov, 1914a:122. Type species: *Apis alpinus* Linnaeus, 1758, by designation of Frison, 1927:66. [Bombus]. **Bombini.**
- Alpinodufourea* Ebner, 1984:360. Type species: *Dufourea alpina* Morawitz, 1865, by original designation. [Dufourea]. **Rophitinae.**
- Amalthea* Rafinesque, 1815:123, unjustified replacement for *Trigona* Jurine. Type species: *Apis amalthea* Olivier, 1789, autobasic and by absolute tautonomy. **Meliponini.**
- Amblyapis* Cockerell, 1910b:362. Type species: *Halictoides ilicifoliae* Cockerell, 1910, by original designation. [Halictoides]. **Dasypodinae.**
- Amblys* Klug, 1807, in Illiger, 1807:198; Klug, 1807b:226. Type species: *Apis bicornis* Linnaeus, 1758 = *Apis rufa* Linnaeus, 1758, by designation of Latreille, 1811:577. Monobasic in Illiger, 1807; Klug, 1807b was published simultaneously and listed two species. Isotypic with *Osmia* and *Ceratosmia*; isotypic with *Pachyosmia* by synonymy. **Osmiini.**
- Amblyspatulariella* Pittioni, 1950:80. Type species: *Prosopis sulphuripes* Gribodo, 1894, by original designation. [Prosopis]. **Hylaeinae.**
- Amegachile* Friese, 1909a:326. Type species: *Megachile sjoestedti* Friese, 1901 = *Megachile bituberculata* Ritsema, 1880, by designation of Cockerell, 1931c:167. Mitchell's (1934:298) designation of *Megachile nasicornis* Friese, 1903, as the type species is subsequent and therefore invalid. [Megachile]. **Megachilini.**
- Amegilla* Friese, 1897a:18, 24. Type species: *Apis quadrifasciata* Villers, 1789, by designation of Cockerell, 1931e:277. [Podalirius]. Isotypic with *Alfkenella*. **Anthophorini.**
- Ammobates* Latreille, 1809:169. Type species: *Ammobates rufiventris* Latreille, 1809, by designation of Latreille, 1810:439. *Ammobates bicolor* Lepeletier and Serville, 1825, designated by Blanchard, 1849:pl. 127 (1846), was not originally included. **Ammobatini.**
- Ammobatoides* Radoszkowski, 1868:82, not Schenck, 1869. Type species: *Phileremus abdominalis* Eversmann, 1852, by designation of Sandhouse, 1943:525. Isotypic with *Phiarus* and *Puidia*. **Ammobatoidini.**
- Ammobatoides* Schenck, 1869:349, not Radoszkowski, 1868. Type species: *Ammobates bicolor* Lepeletier and Serville, 1825 = *Epeolus punctatus* Fabricius, 1804, monobasic. Not replaced because synonym of *Ammobates*. Isotypic with *Phileremus* by synonymy. **Ammobatini.**
- Amphipedia* Michener and Moure, 1957:413. Type species: *Tetrapedia haeckeli* Friese, 1910, by original designation. [Paratetrapedia]. **Tapinotaspidini.**
- Amphyllacus* Michener, 1965a:147, 149. Type species: *Prosopis morosa* Smith, 1879, by original designation. **Hylaeinae.**
- Anacolletes* Michener, 1965a:59. Type species: *Lamprocolletes bimaculatus* Smith, 1879, by original designation. [Leioproctus]. **Colletinae.**
- Analastoroides* Rayment, 1950:20. Type species: *Analasteroides foveata* Rayment, 1950, by original designation. **Hylaeinae.**
- Ananthidiellum* Pasteels, 1969a:49. Type species: *Anthidium anale* Friese, 1914, by original designation. [Anthidiellum]. **Anthidiini.**
- Ananthidium* Urban, 1991:73. Type species: *Anthidium inerme* Friese, 1908, by original designation. **Anthidiini.**
- Anchandrena* LaBerge, 1986:496. Type species: *Andrena angustella* Cockerell, 1936, by original designation. [Andrena]. **Andreninae.**
- Anchirhiza* Michener, 1965a:147. Type species: *Palaeorhiza mandibularis* Michener, 1965, by original designation. [Palaeorhiza]. **Hylaeinae.**
- Ancyla* Lepeletier, 1841:294. Type species: *Ancyla oraniensis* Lepeletier, 1841, monobasic. Isotypic with *Plistotrichia* by synonymy. **Ancylini.**
- Ancylandrena* Cockerell, 1930d:5. Type species: *Andrena heterodoxa* Cockerell, 1930, not Pérez, 1903 = *A. atoposoma* Cockerell, 1934, monobasic. [Andrena]. **Andreninae.**
- Ancylocopa* Maa, 1954:198. Type species: *Xylocopa nitidiventris* Smith, 1878, by original designation. [Proxylocopa]. **Xylocopini.**

- Ancylosceles* Haliday, 1836:320, unjustified emendation of *Ancyloscelis* Latreille, 1829. **Emphorini.**
- Ancyloscelis* Berthold, 1827:466, nomen nudum. Latinization of *Ancyloscelis* Latreille, 1825:463. **Emphorini.**
- Ancyloscelis* Latreille, 1829:355, no included species; Haliday, 1836:320, one included species. Type species: *Ancyloscelis (sic) ursinus* Haliday, 1836, first included species. Blanchard, 1849:pl. 128 (1847), designated *Ancyloscelis brasiliensis* Blanchard, 1847, as type species but it was not the first included species. **Emphorini.**
- Ancyloscelus* Berthold, 1827:565, nomen nudum. **Emphorini.**
- Ancylosoma* Dalla Torre, 1896:206. This name appeared in the synonymy of *Xylocopa brasiliatorum* (Linnaeus), as “*Apis (Ancylosoma) Brasiliatorum* Blanchard, ...1849....” The Blanchard reference is to pl. 128 (1847), where *Ancylosoma* does not appear. Blanchard, however, did propose *Ancyloscelis brasiliensis* for a probable tapinotaspine bee on the plate and figure numbers listed by Dalla Torre. Evidently Dalla Torre erred in genus and species names, and in placing the reference among genuine *Xylocopa* references. The species name *Apis (Ancylosoma) brasiliatorum* Blanchard refers to no species; *Ancylosoma* Dalla Torre appeared only in synonymy under *Xylocopa*, associated with a nonexistent species, and therefore also is not available for use. [Apis]. **Not available.**
- Andinaugochlora* Eickwort, 1969:407. Type species: *Andinaugochlora micheneri* Eickwort, 1969, by original designation. **Augochlorini.**
- Andineta* Ashmead, 1899a:71, incorrect subsequent spelling for *Audinetia* Lepeletier, 1841. **Xylocopini.**
- Andrena* Fabricius, 1775:376. Type species: *Apis helvola* Linnaeus, 1758, by designation of Viereck, 1912:613. *Apis cineraria* Linnaeus, 1758, designated by Latreille, 1810:439; *Apis nitida* Fourcroy, 1785, designated by Curtis, 1826:pl. 129; and *Andrena funebris* Panzer, 1798 = *Apis albopunctata* Rossi, 1792, designated by Blanchard, 1849:pl. 125 (1847) were not originally included species. **Andreninae.**
- Andrenella* Hedicke, 1933:210. Type species: *Melitta minutula* Kirby, 1802, by original designation. [Andrena]. **Andreninae.**
- Andrenopsis* Cockerell, 1905a:363. Type species: *Andrenopsis flavorufus* Cockerell, 1905, monobasic. **Colletinae.**
- Androgynella* Cockerell, 1911c:313. Type species: *Megachile detersa* Cockerell, 1910, by original designation. **Megachilini.**
- Andronicus* Cresson, 1864:384. Type species: *Andronicus cylindricus* Cresson, 1864 (not *Osmia cylindrica* Giraud, 1857) = *Osmia spoliata* Provancher, 1888, monobasic. **Osmiini.**
- Anepicharis* Moure, 1945b:302. Type species: *Epicharis dejeanii* Lepeletier, 1841, by original designation. **Centridini.**
- Angochlora* Schrottky, 1901:213, incorrect subsequent spelling (repeated) for *Augochlora* Smith, 1853. **Augochlorini.**
- Angochloropsis* Schrottky, 1901:213, incorrect subsequent spelling for *Augochloropsis* Cockerell, 1897. [Angochlora]. **Augochlorini.**
- Anhyllaeus* Heider, 1926:184, unjustified emendation of *Anylaeus* Bridwell, 1919. **Hylaeinae.**
- Annosmia* Warncke, 1991b:307. Type species: *Osmia annulata* Latreille, 1811, by original designation. [Osmia]. **Osmiini.**
- Anodontaeutricharaea* Tkalcú, 1993b:807. Type species: *Megachile larochei* Tkalcú, 1993 = *Megachile lanigera* Alfken, 1933, by original designation. [Megachile]. **Megachilini.**
- Anodontobombus* Krüger, 1917:61. Type species: *Apis hypnororum* Linnaeus, 1758, by designation of Williams, 1991:69. A sectional name treated as a genus-group name in view of the Code, 3rd ed., Art. 10(e). [Bombus]. Isotypic with *Pyrobombus*, *Uncobombus*, and *Hypnorobombus*. **Bombini.**
- Anoediscelis* Toro and Moldenke, 1979:131. Type species: *Oediscelis herbsti* Friese, 1906, by original designation. **Xeromelissinae.**
- Anomalohesma* Exley, 1977:39. Type species: *Brachyhesma scapata* Exley, 1977, by original designation. [Brachyhesma]. **Euryglossinae.**
- Anthedon* Robertson, 1900:53, not Agassiz, 1846. Type species: *Melissodes compta* Cresson, 1878, monobasic. See *Abda* and *Anthedonia*. **Eucerini.**
- Anthedonia* Michener, 1942:282, replacement for *Anthedon* Robertson, 1900. Type species: *Melissodes compta* Cresson, 1878, autobasic. **Eucerini.**
- Anthemoessa* Robertson, 1905:372, not Agassiz, 1846. Type species: *Anthophora abrupta* Say, 1837, by original designation. See *Melea*. **Anthophorini.**
- Anthemois* Robertson, 1903a:168, 172. Type species: *Megachile infragilis* Cresson, 1878 = *Apis centuncularis* Linnaeus, 1758, by original designation. Isotypic with *Megachile* by synonymy. **Megachilini.**
- Anthemurgus* Robertson, 1902b:321. Type species: *Anthemurgus passiflorae* Robertson, 1902, monobasic. **Panurginae.**
- Anthidiandum* Michener, 1948a:13, replacement for *Trichanthidium* Moure, 1947. Type species: *Anthidium subpetiolatum* Schrottky, 1910, autobasic. [Allanthidium]. **Anthidiini.**
- Anthidiellum* Cockerell, 1904c:3. Type species: *Trachusa strigata* Panzer, 1805, by original designation. [Anthidium]. Isotypic with *Cerianthidium*. **Anthidiini.**
- Anthidioma* Pasteels, 1984:34. Type species: *Anthidioma chalicodomoides* Pasteels, 1984, by original designation. **Anthidiini.**
- Anthidium* Fabricius, 1804:364. Type species: *Apis manicata* Linnaeus, 1758, by designation of Latreille, 1810:439. **Anthidiini.**
- Anthidulum* Michener, 1948a:19. Type species: *Dianthidium curranii* Schwarz, 1933, by original designation. [Dianthidium]. **Anthidiini.**
- Anthocharessa* Gistel, 1850:82, unjustified replacement for *Andrena* Fabricius, 1775. Type species: *Apis helvola* Linnaeus, 1758, autobasic. **Andreninae.**

- Anthocopa* Lepeletier and Serville, 1825:314. Type species: *Apis papaveris* Latreille, 1799, monobasic. Isotypic with *Phyllotoma* and *Furcosmia*. **Osmiini**.
- Anthodioctes* Holmberg, 1887b:36. Nomen nudum. **Anthidiini**.
- Anthodioctes* Holmberg, 1903:435. Type species: *Anthodioctes megachiloides* Holmberg, 1903, by designation of Cockerell, 1927b:2. *A. dasygasterinus* Holmberg, 1903, designated as type species by Isensee, 1927:375, was not an originally included species name and is not a published name so far as known. **Anthidiini**.
- Anthoglossa* Smith, 1853:16. Type species: *Anthoglossa plumata* Smith, 1853, monobasic. **Colletinae**.
- Anthomegilla* Marikovskaya, 1976:688. Type species: *Anthophora arctica* Morawitz, 1883, by original designation. **Anthophorini**.
- Anthophora* Latreille, 1803:167, replacement for *Podalirius* Latreille, 1802. Type species: *Apis pilipes* Fabricius, 1775 = *Apis plumipes* Pallas, 1772, designated by Commission Opinion 151 (1944). *Apis retusa* Linnaeus, 1758, designated as type species by Curtis, 1831:pl. 357, is not an originally included species. **Anthophorini**.
- Anthophorisca* Michener and Moure, 1957:433. Type species: *Melissodes pygmaea* Cresson, 1872, by original designation. [Exomalopsis]. **Exomalopsini**.
- Anthophorites* Heer, 1850:97. Type species: *Anthophorites mellona* Heer, 1850, designated by Cockerell, 1909d:315. **Fossil**.
- Anthophoroides* Cockerell and Cockerell, 1901:48. Type species: *Podalirius vallorum* Cockerell, 1896, by original designation. **Anthophorini**.
- Anthophorula* Cockerell, 1897d:44. Type species: *Anthophorula compactula* Cockerell, 1897, monobasic. **Exomalopsini**.
- Anthrena* Illiger, 1801:127, unjustified emendation of *Andrena* Fabricius, 1775. **Andreninae**.
- Anthrenoides* Ducke, 1907:368. Type species: *Anthrenoides alkeni* Ducke, 1907 = *Protandrena meridionalis* Schrottky, 1906, monobasic. **Panurginae**.
- Anylaeus* Bridwell, 1919:129. Type species: *Nothylaeus aberrans* Bridwell, 1919, by original designation. [Nothylaeus]. **Hylaeinae**.
- Aparatrigona* Moure, 1951a:60. Type species: *Melipona impunctata* Ducke, 1916, by original designation. [Paratrigona]. **Meliponini**.
- Apathus* Newman, 1834:404 footnote, unjustified replacement for *Psithyrus* Lepeletier, 1832. Type species: *Apis rupestris* Fabricius, 1793, autobasic. **Bombini**.
- Apeulaema* Moure, 1950b:184. Type species: *Eulaema fasciata* Lepeletier, 1841 = *Centris cingulata* Fabricius, 1804, by original designation. [Eulaema]. **Englossini**.
- Aphalictus* Cockerell, 1930e:40. Type species: *Parasphecodes briensis* Cockerell, 1916, by original designation. [Parasphecodes]. **Halictini**.
- Aphaneura* Gray, 1832:575. Type species: *Aphaneura rufescens* Gray, 1832, monotypic. See *Alphaneura* Gray, and Michener, 1995. **Meliponini**.
- Aphelonomada* Snelling, 1986:9. Type species: *Nomada cruralis* Moure, 1960, by original designation. [Hypochrotaenia]. **Nomadini**.
- Apianthidium* Pasteels, 1969a:41. Type species: *Anthidium apiforme* Meade-Waldo, 1914, by original designation. **Anthidiini**.
- Apiaria* Germar, 1839:210. Type species: *Apiaria dubia* Germar, 1839, monobasic. **Fossil**.
- Apiarus* Rafinesque, 1815:123, unjustified replacement for *Apis* Linnaeus, 1758. Type species: *Apis mellifera* Linnaeus, 1758, autobasic. **Apini**.
- Apicula* Rafinesque, 1814:27, unjustified replacement for *Apis* Linnaeus, 1758. Type species: *Apis mellifera* Linnaeus, 1758, autobasic. **Apini**.
- Apis* Linnaeus, 1758:343, 574. Type species: *Apis mellifica* Linnaeus, 1761 = *A. mellifera* Linnaeus, 1758, by designation of Latreille, 1810:439. **Apini**.
- Apista* Smith, 1861:148, not Hübner, 1816. Type species: *Apista opalina* Smith, 1861, monobasic. See *Egapista*. **Dissoglossini**.
- Apomelissodes* LaBerge, 1956:1175. Type species: *Melissodes fimbriata* Cresson, 1878, by original designation. [Melissodes]. **Eucerini**.
- Aporandrena* Lanham, 1949:201. Type species: *Andrena coactipostica* Viereck, 1917, by original designation. [Andrena]. **Andreninae**.
- Apotrigona* Moure, 1961:233. Type species: *Trigona nebulata* Smith, 1854, by original designation. **Meliponini**.
- Apoxylocopa* Hurd and Moure, 1963:226. Type species: *Xylocopa lugubris* Gerstaecker, 1857, by original designation. [Xylocopa]. **Xylocopini**.
- Archeriades* Peters, 1978a:337. Type species: *Eriades larvatus* Friese, 1909, by original designation. **Osmiini**.
- Archiaandrena* LaBerge, 1986:482. Type species: *Andrena banksi* Malloch, 1917, by original designation. [Andrena]. **Andreninae**.
- Archianthidium* Mavromoustakis, 1939:91. Type species: *Anthidium laticeps* Morawitz, 1873, by original designation. **Anthidiini**.
- Archihalictus* Pauly, 1984b:132. Type species: *Halictus joffrei* Benoist, 1962, by original designation. **Halictini**.
- Archimegachile* Alfken, 1933:56. Type species: *Megachile flavipes* Spinola, 1838, by original designation. [Megachile]. **Megachilini**.
- Arctosmia* Schmiedeknecht, 1885:21. Type species: *Megachile villosa* Schenck, 1853 (not *Apis villosa* Fabricius, 1775) = *Osmia platycera* Gerstaecker, 1869, monobasic. [Osmia]. Isotypic with *Lithosmia*. **Osmiini**.
- Ardenthidium* Pasteels, 1969a:103. Type species: *Anthidium ardens* Smith, 1879, by original designation. [Anthidium]. **Anthidiini**.

- Argalicus* Pesenko, 1984:348. Type species: *Hylaeus senilis* Eversmann, 1852, by original designation. [Halictus]. **Halictini.**
- Argohesma* Exley, 1969:528. Type species: *Argohesma eremica* Exley, 1969, by original designation. **Euryglossinae.**
- Argyropile* Mitchell, 1934:308. Type species: *Megachile parallela* Smith, 1853, by original designation. [Megachile]. **Megachilini.**
- Argyroselenis* Robertson, 1903c:284. Type species: *Triepeolus minimus* Robertson, 1902, by original designation. **Epeolini.**
- Arhysoceble* Moure, 1948:335. Type species: *Arhysoceble xanthopoda* Moure, 1948, by original designation. **Tapinotaspidini.**
- Arhysosage* Brèthes, 1922:121. Type species: *Arhysosage johnsoni* Brèthes, 1922 = *Camptopoeum ochraceum* Friese, 1908, monobasic. Isotypic with *Ruiziella* and *Ruziapis* by synonymy. **Panurginae.**
- Ariphanarthra* Moure, 1951b:137. Type species: *Ariphanarthra palpalis* Moure, 1951, by original designation. **Augochlorini.**
- Arogochila* Michener, 1939:58. Type species: *Ashmeadiella timberlakei* Michener, 1936, by original designation. [Ashmeadiella]. **Osmiini.**
- Asaropoda* Cockerell, 1926b:216. Type species: *Saropoda bombiformis* Smith, 1854, by original designation. **Anthophorini.**
- Ascirtetica* Moure and Michener, 1955b:260. Type species: *Eucera herbsti* Friese, 1906, by original designation. [Alloscirtetica]. **Eucerini.**
- Ashmeadiella* Cockerell, 1897c:197. Type species: *Heriades opuntiae* Cockerell, 1897, by original designation. **Osmiini.**
- Ashtonipsithyrus* Frison, 1927:69. Type species: *Apathus ashtoni* Cresson, 1864, by original designation. [Psithyrus]. **Bombini.**
- Asianthidium* Popov, 1950a:315. Type species: *Anthidium glasunovi* Morawitz, 1894, by original designation. [Meganthidium]. **Anthidiini.**
- Aspidosmia* Brauns, 1926:208. Type species: *Osmia arnoldi* Brauns, 1926, monobasic. [Osmia]. **Osmiini.**
- Asteronomada* Broemeling, 1988:336. Type species: *Nomada adducta* Cresson, 1878, by original designation. [Nomada]. **Nomadini.**
- Atopeucera* Tkalcù, 1984b:71. Type species: *Eucera seminuda* Brullé, 1832, by original designation. [Eucera]. **Eucerini.**
- Atoposmia* Cockerell, 1935a:50. Type species: *Osmia triodonta* Cockerell, 1935, monobasic. [Osmia]. **Osmiini.**
- Atrocinctobombus* Skorikov, 1933b:244, nomen nudum. **Bombini.**
- Atrodifourea* Ebmer, 1984:360. Type species: *Rophites atrata* Warncke, 1979, by original designation. [Dufourea]. **Rophitinae.**
- Atronomioides* Pesenko, 1983:186. Type species: *Ceylalictus warnckeii* Pesenko, 1983, by original designation. [Ceylalictus]. **Nomioidinae.**
- Atropium* Pasteels, 1984:132. Type species: *Megachile atropos* Smith, 1853, by original designation. **Anthidiini.**
- Atrosamba* Michener, 1981:65. Type species: *Haplomelitta atra* Michener, 1981, by original designation. [Haplomelitta]. **Dasypodinae.**
- Audinetia* Ashmead, 1899a:97, incorrect subsequent spelling for *Audinetia* Lepeletier, 1841. **Xylocopini.**
- Audinetia* Lepeletier, 1841:203. Type species: *Apis latipes* Drury, 1773, by designation of Sandhouse, 1943:529. [Xylocopa]. Isotypic with *Platynopoda*. **Xylocopini.**
- Augandrena* LaBerge, 1986:557. Type species: *Andrena plumiscopa* Timberlake, 1951, by original designation. [Andrena]. **Andreninae.**
- Augochlora* Smith, 1853:73. Type species: *Halictus purus* Say, 1837, designated by Cockerell, 1923b:448. **Augochlorini.**
- Augochlorella* Sandhouse, 1937:66. Type species: *Augochlora gratiosa* Smith, 1853, by original designation. **Augochlorini.**
- Augochlorodes* Moure, 1958:53. Type species: *Augochlorodes turritifaciens* Moure, 1958, by original designation. **Augochlorini.**
- Augochloropsis* Cockerell, 1897b:4. Type species: *Augochlora subignita* Cockerell, 1897 = *Augochlora ignita* Smith, 1861, by original designation. *Augochlora spinolae* Cockerell, 1900, designated by Schrottky, 1909b:481, was not originally included. [Augochlora]. **Augochlorini.**
- Auricularia* Méhely, 1935:41, 147. Invalid because no type species was designated. Sandhouse's (1943:529) view that Popov (1939) designated a type species and thus validated the name is incorrect. [Prosopis]. **Hylaeinae.**
- Ausanthidium* Pasteels, 1969a:60. Type species: *Anthidiellum ausense* Mavromoustakis, 1934, by original designation. **Anthidiini.**
- Australictus* Michener, 1965a:165. Type species: *Halictus peraustralis* Cockerell, 1904, by original designation. [Lasioglossum]. **Halictini.**
- Austrandrena* Cockerell, 1906c:37. Type species: *Andrena modesta* Smith, 1879, by original designation. [Protandrena]. **Panurginae.**
- Austrevylaeus* Michener, 1965a:170. Type species: *Halictus sordidus* Smith, 1853, by original designation. [Lasioglossum]. **Halictini.**
- Astrochile* Michener, 1965a:202. Type species: *Megachile resinifera* Meade-Waldo, 1915, by original designation. [Chalicodoma]. **Megachilini.**
- Austrodioxys* Cockerell, 1916a:432. Type species: *Austrodioxys thomasi* Cockerell, 1916 = *Caenopropopsis crabronina* Holmberg, 1887, monobasic. Isotypic with *Caenopropopsis* by synonymy. **Caenopropopidini.**
- Astromegachile* Mitchell, 1943:666. Type species: *Megachile montezuma* Cresson, 1878, by original designation. [Megachile]. **Megachilini.**
- Austronomia* Michener, 1965a:156. Type species: *Nomia australica* Smith, 1875, by original designation. [Nomia]. **Nomiinae.**

- Austropanurgus* Toro, 1980:209. Type species: *Austropanurgus punctatus* Toro, 1980, monobasic. **Panurginae**.
- Austropeponapis* Hurd and Linsley, 1970:21. Type species: *Tetralonia melonis* Friese, 1925, by original designation. [Peponapis]. **Encerini**.
- Austroplebeia* Moure, 1961:195. Type species: *Trigona cassiae* Cockerell, 1910, by original designation. **Meliponini**.
- Austrosphexodes* Michener, 1978b:327. Type species: *Sphecodes chilensis* Spinola, 1851, by original designation. [Sphecodes]. **Halictini**.
- Austrostelis* Michener and Griswold, 1994b:676. Type species: *Stelis aliena* Cockerell, 1919, by original designation. [Hoplostelis]. **Anthidiini**.
- Autochelostoma* Sladen, 1916a:270. Type species: *Autochelostoma canadensis* Sladen, 1916 = *Alcidamea producta* Cresson, 1864, monobasic. Isotypic with *Alcidamea* by synonymy. **Osmiini**.
- Avandrena* Warncke, 1968:31. Type species: *Andrena avara* Warncke, 1967, by original designation. [Andrena]. **Andreninae**.
- Avpanurgus* Warncke, 1972:70. Type species: *Panurgus flavofasciatus* Warncke, 1972, by original designation. [Panurgus]. **Panurginae**.
- Axestotrigona* Moure, 1961:237. Type species: *Melipona ferruginea* Lepeletier, 1836, by original designation. **Meliponini**.
- Axillanthidium* Pasteels, 1969a:39. Type species: *Axillanthidium axillare* Pasteels, 1969 = *Anthidium ducale* Morawitz, 1876, by original designation. **Anthidiini**.
- Azecanthidium* Michener and Ordway, 1964:70. Type species: *Azecanthidium xochipilli* Michener and Ordway, 1964, by original designation. **Anthidiini**.
- Baana* Sandhouse, 1943:530, replacement for *Ctenopoda* Ma, 1938. Type species: *Apis fenestrata* Fabricius, 1798, autobasic and by original designation. **Xylocopini**.
- Baeocolletes* Michener, 1965a:70. Type species: *Leioproctus calcaratus* Michener, 1965, by original designation. [Leioproctus]. **Colletinae**.
- Barbata* Méhely, 1935:32, 138, not Humphrey, 1797. Type species: *Prosopis friesei* Alfken, 1904, monobasic. [Prosopis]. See *Mehelya* and *Mehelyana*. **Hylaeinae**.
- Bathanthidium* Mavromoustakis, 1953:837. Type species: *Dianthidium bifoveolatum* Alfken, 1937, by original designation. [Dianthidium]. **Anthidiini**.
- Bekilia* Benoist, 1962:220. Type species: *Bekilia mimetica* Benoist, 1962, by original designation. **Osmiini**?
- Belandrena* Ribble, 1968b:221. Type species: *Andrena nemophilae* Ribble, 1968, by original designation. [Andrena]. **Andreninae**.
- Bellanthidium* Pasteels, 1969a:38. Type species: *Anthidium infuscatum* Erichson, 1835, by original designation. **Anthidiini**.
- Belopria* Moure, 1956:305. Type species: *Belopria zonata* Moure, 1956, by original designation. **Colletinae**.
- Benanthis* Pasteels, 1969a:61. Type species: *Anthidium madagascariensis* Benoist, 1963, by original designation. **Anthidiini**.
- Berna* Friese, 1911c:668. Type species: *Berna africana* Friese, 1911 (combination as though *Berna* were a genus) = *Megachile africanibia* Strand, 1912, monobasic. [Megachile]. **Megachilini**.
- Betheliella* Cockerell, 1924b:169. Type species: *Betheliella calocharti* Cockerell, 1924, monobasic. **Rophitinae**.
- Biareolina* Dours, 1873:288. Type species: *Andrena neglecta* Dours, 1873 = *Andrena lagopus* Latreille, 1809, designated by Sandhouse, 1943:530. **Andreninae**.
- Biastes* Panzer, 1806:239. Type species: *Tiphia brevicornis* Panzer, 1798, monobasic. Isotypic with *Rhineta* by synonymy. **Biastini**.
- Biastoides* Schenck, 1873:252. Type species: *Pasites punctatus* Schenck, 1870 = *Phileremus emarginatus* Schenck, 1853, monobasic. **Biastini**.
- Bicolletes* Friese, 1908b:341 (p. 11 in reprint). Type species: *Bicolletes neotropica* Friese, 1908, by designation of Cockerell, 1915:342. **Colletinae**.
- Bicornelia* Friese, 1899a:239. Type species: *Bicornelia serrata* Friese, 1899, monobasic. **Dissoglossini**.
- Biglossa* Friese, 1906c:374. Type species: *Biglossa thoracica* Friese, 1906, by designation of Cockerell, 1914:328. **Colletinae**.
- Biglossidia* Moure, 1948:313. Type species: *Biglossa chalybaea* Friese, 1906, by original designation. **Colletinae**.
- Biluna* Ma, 1938:276. Type species: *Xylocopa nasalis* Westwood, 1842, by original designation. [Xylocopa]. **Xylocopini**.
- Binghamiella* Cockerell, 1907c:235. Type species: *Sphecodes antipodes* Smith, 1853, monobasic. **Colletinae**.
- Birkmania* Viereck, 1909:50. Type species: *Birkmania andrenoides* Viereck, 1909 = *Panurginus polytrichus* Cockerell, 1909, by original designation. **Panurginae**.
- Bluethgenia* Pesenko, 1986a:136. Type species: *Halicus dynastes* Bingham, 1898, by original designation. [Lasioglossum]. **Halictini**.
- Bombias* Robertson, 1903a:176. Type species: *Bombias auricomus* Robertson, 1903 = *B. nevadensis auricomus* (Robertson), by original designation. Isotypic with *Boopobombus*. **Bombini**.
- Bomboxylocopa* Maa, 1939:155. Type species: *Xylocopa bomboides* Smith, 1879, by original designation. [Xylocopa]. **Xylocopini**.
- Bombomelecta* Patton, 1879b:370. Type species: *Melecta thoracica* Cresson, 1876, monobasic. **Melectini**

- Bombus* Latreille, 1802a:437. Type species: *Apis terrestris* Linnaeus, 1758, monobasic. A subsequent designation is *Apis muscorum* Linnaeus, 1758, by Westwood, 1840a:86; it was not an originally included species. Isotypic with *Bremus Jurine*, *Bremus Panzer*, *Leucobombus*, and *Terrestribombus*. **Bombini**.
- Bombusoides* Motschulsky, 1856:28. Type species: *Bombusoides mengei* Motschulsky, 1856, monobasic. **Fossil**.
- Boopobombus* Frison, 1927:62. Type species: *Bombias auricomus* Robertson, 1903 = *B. nevadensis auricomus* (Robertson), by designation of Williams, 1994:339. A sectional name that, according to the Code, 3rd ed., Art. 10(e), must be treated as a subgenus. Isotypic with *Bombias*. [*Bombus*]. **Bombini**.
- Boreocoelioxys* Mitchell, 1973:37. Type species: *Coelioxys rufitarsus* Smith, 1854, by original designation. [*Coelioxys*]. **Megachilini**.
- Boreopsis* Ikudome, 1991:790. Type species: *Hylaeus macilentus* Ikudome, 1989, by original designation. [*Hylaeus*]. **Hylaeinae**.
- Bothranthidium* Moure, 1947a:23. Type species: *Bothranthidium lauroi* Moure, 1947, by original designation. **Anthidiini**.
- Brachyandrena* Pittioni, 1948:54. Type species: *Andrena colletiformis* Morawitz, 1874, by original designation. [*Andrena*.] **Andreninae**.
- Brachycephalapis* Viereck, 1909:47. Type species: *Melitta californica* Viereck, 1909, by original designation. **Melittinae**.
- Brachycephalibombus* Williams, 1985:247. Type species: *Bombus brachycephalus* Handlirsch, 1888, by original designation. [*Bombus*]. **Bombini**.
- Brachyglossa* Friese, 1922a:577, not Boisduval, 1829. Type species: *Brachyglossa rufocauerulea* Friese, 1922, monobasic. See *Brachyglossula*. **Colletinae**.
- Brachyglossula* Hedicke, 1922:427, replacement for *Brachyglossa* Friese, 1922. Type species: *Brachyglossa rufocauerulea* Friese, 1922, autobasic. **Colletinae**.
- Brachyhesma* Michener, 1965a:112. Type species: *Euryglossina sulphurella* Cockerell, 1913, by original designation. **Euryglossinae**.
- Brachymelecta* Linsley, 1939a:458. Type species: *Melecta mucida* Cresson, 1879, by original designation. **Melectini**.
- Brachymelissodes* LaBerge, 1956:926. Type species: *Eucera cressonii* Dalla Torre, 1896, by original designation. [*Melissodes*]. **Eucerini**.
- Brachynomada* Holmberg, 1886b:233, 239, 272. Type species: *Brachynomada argentina* Holmberg, 1886, designated by Sandhouse, 1943:531. **Brachynomadini**.
- Brachyspatulariella* Pittioni, 1950:79. Type species: *Spatulariella helenae* Pittioni, 1950, by original designation. [*Prosopis*]. **Hylaeinae**.
- Braunapis* Pasteels, 1969a:88. Type species: *Anthidium brauni* Friese, 1904, by original designation. **Anthidiini**.
- Brasilagapostemon* Moure and Sakagami, 1984:4. Type species: *Pseudagapostemon fluminensis* Schrottky, 1911, monobasic. [*Pseudagapostemon*]. **Halictini**.
- Bremus* Jurine, 1801:164. Type species: *Apis terrestris* Linnaeus, 1758, by designation of Morice and Durrant, 1915:428. Invalidated by Commission Opinion 135, 1939. Isotypic with *Bremus Panzer*, *Bombus*, *Leucobombus*, and *Terrestribombus*. **Bombini**.
- Bremus* Panzer, 1804a:19. Type species: *Apis terrestris* Linnaeus, 1758, by designation of Benson, Ferrière and Richards, 1937:93. Sandhouse's (1943) subsequent designation of *Apis agrorum* Fabricius, 1787, as the type species is invalid. Panzer (1804a, dated 1801 by Benson, Ferrière and Richards) did not include *Apis terrestris*, but he did include *Bremus faciatus* Panzer. Because Benson, Ferrière and Richards list that name as a synonym of *Apis terrestris*, the latter was available for designation as type species of *Bremus Panzer* [see the Code, 3rd ed., Art. 69(a)(v)]. I follow Sandhouse (1943) in the dating of *Bremus Panzer*; the real date of publication could have been from 1801 to 1804. Isotypic with *Bombus*, *Bremus Jurine*, *Leucobombus*, and *Terrestribombus*. **Bombini**.
- Bremus* Kirby, 1837:272 footnote, not Panzer, 1804. Type species: *Apis rupestris* Fabricius, 1793, by designation of Milliron, 1961:59. Not replaced because a junior synonym of *Psithyrus*. Isotypic with *Psithyrus*. **Bombini**.
- Brevineura* Michener, 1965a:224. Type species: *Exoneura concinnula* Cockerell, 1913, by original designation. [*Exoneura*]. **Allodapini**.
- Bythandrena* Lanham, 1950:140, replacement for *Cryptandrena* Lanham, 1949. Type species: *Andrena carlini* Cockerell, 1901, autobasic. [*Andrena*]. **Andreninae**.
- Bytinskia* Mavromoustakis, 1954:269. Type species: *Bytinskia erythrogaster* Mavromoustakis, 1954, by original designation. **Osmiini**.
- Cacosoma* Smith, 1879:39, not Felder, 1874. Type species: *Cacosoma discolor* Smith, 1879, by original designation. See *Neocorynura*. **Augochlorini**.
- Cadeguala* Reed, 1892:234. Type species: *Colletes chilensis* Spinola, 1851 = *Colletes occidentalis* Haliday, 1836, by designation of Sandhouse, 1943:532. **Diphaglossinae**.
- Cadegualina* Michener, 1986b:187. Type species: *Bicornelia andina* Friese, 1925, by original designation. **Diphaglossinae**.
- Caenaugochlora* Michener, 1954:76. Type species: *Caenaugochlora macswaini* Michener, 1954, by original designation. **Augochlorini**.
- Caenohalictus* Cameron, 1903a:231. Type species: *Caenohalictus trichiothalmus* Cameron, 1903, monobasic. **Halictini**.
- Caenonomada* Ashmead, 1899a:68. Type species: *Caenonomada bruneri* Ashmead, 1899, by original designation. Isotypic with *Chacoana* by synonymy. **Tapinotaspidini**.

- Caenoprosopina* Roig-Alsina, 1987:312. Type species: *Caenoprosopina holmbergi* Roig-Alsina, 1987, by original designation. **Caenoprosopidini.**
- Cuenoprosopis* Holmberg, 1886b:235, no included species; 1887a:22, one included species. Type species: *Caenoprosopis crabronina* Holmberg, 1887, first included species. Isotypic with *Austrodioxys* by synonymy. **Caenoprosopidini.**
- Caerulosmia* Zanden, 1988:123, nomen nudum.
- Caerulosmia* Zanden 1989:83. Type species: *Osmia gallarum* Spinola, 1808, by original designation. [Osmia]. **Osmiini.**
- Cuesarea* Friese, 1911d:142. Type species: *Ammobates depressa* Friese, 1911, by designation of Sandhouse, 1943:532. [Ammobates]. **Ammobatini.**
- Calchalictus* Warnecke, 1975b:99. Type species: *Apis calceata* Scopoli, 1763, by original designation. [Halictus]. **Halictini.**
- Caliendra* Gistel 1848:viii, unjustified replacement for *Chrysantheda* Perty, 1833. Type species: *Chrysantheda nitida* Perty, 1833 = *Apis dentata* Linnaeus, 1758, autobasic. Isotypic with *Exaerete* by synonymy. **Euglossini.**
- Callalictus* Michener, 1965a:170. Type species: *Parasphecodes tooloomensis* Cockerell, 1929, by original designation. [Lasioglossum]. **Halictini.**
- Callandrena* Cockerell, 1898b:186. Type species: *Panurgus manifestus* Fox, 1894, monobasic. **Andreninae.**
- Callanthidium* Cockerell, 1925a:365. Type species: *Anthidium illustre* Cresson, 1879, by original designation. **Anthidiini.**
- Calleupetersia* Cockerell, 1938:329. Type species: *Halictus lasureus* Friese, 1910, by original designation. **Halictini.**
- Callimelissodes* LaBerge, 1961:294. Type species: *Melissodes lupina* Cresson, 1878, by original designation. [Melissodes]. **Eucerini.**
- Callinomada* Rodeck, 1945:181. Type species: *Nomada antonita* Cockerell, 1909, by original designation. [Nomada]. **Nomadini.**
- Calliopsisma* Shinn, 1967:834. Type species: *Calliopsis rozeni* Shinn, 1967, by original designation. [Calliopsis]. **Panurginae.**
- Calliopsis* Smith, 1853:128. Type species: *Calliopsis andreniformis* Smith, 1853, by designation of Ashmead, 1899a: 85. **Panurginae.**
- Callistochlora* Michener, new name, replacement for *Callochlora* Moure, 1964b:269, not Packard, 1864. Type species: *Halictus chloris* Spinola, 1851, autobasic. When informed of the homonymy, Padre J. S. Moure suggested the name here proposed but asked that I publish it. **Augochlorini.**
- Callobombus* Dalla Torre, 1896:503, unjustified emendation of *Kallobombus* Dalla Torre, 1880. [Bombus]. **Bombini.**
- Calloceratina* Cockerell, 1924d:77. Type species: *Ceratina amabilis* Cockerell, 1897 = *C. exima* Smith, 1862, by original designation. [Ceratina]. **Ceratinini.**
- Callochile* Michener, 1962:27. Type species: *Megachile ustulatiformis* Cockerell, 1910 = *Apis mystacea* Fabricius, 1775, by original designation. [Megachile]. **Megachilini.**
- Callochlora* Moure, 1964b:269, not Packard, 1864. Type species: *Halictus chloris* Spinola, 1851, by original designation. See *Callistochlora*. **Augochlorini.**
- Callocolletes* Michener, 1965a:80. Type species: *Trichocolletes pulcherrimus* Michener, 1965, by original designation. [Trichocolletes]. **Colletinae.**
- Callohesma* Michener, 1965a:95. Type species: *Euryglossa calliopsisiformis* Cockerell, 1905, by original designation. [Euryglossa]. **Euryglossinae.**
- Callomacrotera* Timberlake, 1954:413. Type species: *Perdita maritima* Timberlake, 1954, by original designation. [Perdita]. **Panurginae.**
- Callomegachile* Michener, 1962:21. Type species: *Chalicodoma mystaceana* Michener, 1962, by original designation. [Chalicodoma]. **Megachilini.**
- Callomelecta* Cockerell, 1926c:621. Type species: *Callomelecta pendleburyi* Cockerell, 1926, by original designation. **Melectini.**
- Callomelitta* Smith, 1853:85. Type species: *Callomelitta picta* Smith, 1853, monobasic. **Colletinae.**
- Callonychium* Brèthes, 1922:120. Type species: *Callonychium argentinum* Brèthes, 1922, monobasic. **Panurginae.**
- Calloprosopis* Snelling, 1985:27. Type species: *Hylaeus magnificus* Cockerell, 1942, by original designation. **Hylaeinae.**
- Callorhiza* Hirashima, 1989:2. Type species: *Prosopis apicatus* Smith, 1863, by original designation. [Palaeorhiza]. **Hylaeinae.**
- Callosphecodes* Friese, 1909b:182. Type species: *Sphecodes ralunensis* Friese, 1909, monobasic. [Sphecodes]. **Halictini.**
- Calloxylocopa* Hurd and Moure, 1963:142. Type species: *Xylocopa tenuata* Smith, 1874, by original designation. [Xylocopa]. **Xylocopini.**
- Calohoplitis* Tkalcù, 1995:129. Type species: *Osmia laboriosa* Smith, 1878, by original designation. [Hoplitis]. **Osmiini.**
- Calomelissa* Hirashima and LaBerge, 1963, in Hirashima, 1963:241. Type species: *Andrena prostomias* Pérez, 1805, by original designation. [Andrena]. **Andreninae.**
- Calospiloma* Brèthes, 1909b:68 footnote. Type species: *Epeolus viperinus* Holmberg, 1886, by original designation. Isotypic with *Palinepeolus*; isotypic with *Isepeolus* by synonymy. **Isepeolini**
- Calyptapis* Cockerell, 1906a:41. Type species: *Calyptapis florissantensis* Cockerell, 1906, monobasic. **Fossil.**
- Camargoia* Moure, 1989a:72. Type species: *Camargoia camargoi* Moure, 1989, by original designation. **Meliponini.**
- Canpanularia* Méhely, 1935:157, not Lamarck, 1816. Invalid because no type species was designated; also homonym. [Prosopis]. See *Paraprosopis*. **Hylaeinae.**
- Camptopaeum* Spinola, 1851:192, unjustified emendation of *Camptopoeum* Spinola, 1843. **Panurginae.**
- Camptopoeum* Spinola, 1843:139. Type species: *Prosopis frontalis* Fabricius, 1804, by original designation. **Panurginae.**

- Campylogaster* Dours, 1873:286. Type species: *Campylogaster fulvo-crustatus* Dours, 1873 = *Andrena erberi* Morawitz, 1871, designated by Sandhouse, 1943:534. **Andreninae**.
- Canephora* Friese, 1908b:94, not Hübner, 1822, replacement for *Corbicula* Friese, 1908. Type species: *Corbicula apiformis* Friese, 1908, autobasic. See *Canephorula*. **Eucerini**.
- Canephorula* Jörgensen, 1909:212, replacement for *Canephora* Friese, 1908. Type species: *Corbicula apiformis* Friese, 1908, autobasic. **Eucerini**.
- Capanthidium* Pasteels, 1969a:85. Type species: *Anthidium "capicole"* Friese, "lapsus for *capicola*" Brauns, 1905, by original designation. **Anthidiini**.
- Capicola* Friese, 1911a:672. Type species: *Capicola braunsiana* Friese, 1911, monobasic. **Dasypodinae**.
- Capicoloides* Michener, 1981:83. Type species: *Capicola aliciae* Cockerell, 1932, by original designation. [Capicola]. **Dasypodinae**.
- Caposmia* Peters, 1984:378. Type species: *Osmia braunsi* Peters, 1984, by original designation. [Osmia]. **Osmiini**.
- Carandrena* Warnecke, 1968:94. Type species: *Andrena aerinifrons* Dours, 1873, by original designation. [Andrena]. **Andreninae**.
- Caranthophora* Brooks, 1988:470. Type species: *Anthophora dufouri* Lepeletier, 1841, by original designation. [Anthophora]. **Anthophorini**.
- Carimanthidium* Pasteels, 1969a:42. Type species: *Megachile cariniventris* Friese, 1904, by original designation. **Anthidiini**.
- Carinapis* Stage, 1981, in Michener, 1981:98. Type species: *Hesperapis carinata* Stevens, 1919, by original designation. [Hesperapis]. **Dasypodinae**.
- Carinella* Pasteels, 1965:447, not Johnston, 1833. Type species: *Megachile torrida* Smith, 1853, by original designation. [Chalicodoma]. See *Carinula*. **Megachilini**.
- Carinellum* Pasteels, 1969a:80. Type species: *Anthidium ochrognathum* Alfken, 1932, by original designation. [Pseudoanthidium]. **Anthidiini**.
- Carinorophites* Warnecke, 1979:136. Type species: *Dufourea rufiventris* Friese, 1898, by original designation. [Rophites]. **Rophitinae**.
- Carinula* Michener, McGinley, and Danforth, 1994:174, replacement for *Carinella* Pasteels, 1965. Type species: *Megachile torrida* Smith, 1853, autobasic. [Megachile]. **Megachilini**.
- Carloticola* Moure and Urban, 1990:90. Type species: *Dianthidium paraguayense* Schrottky, 1908, by original designation. **Anthidiini**.
- Catoceratina* Vecht, 1952:30. Type species: *Ceratina perforatrix* Smith, 1879, by original designation. [Ceratina]. **Ceratinini**.
- Caupolicana* Spinola, 1851:212. Type species: *Caupolicana gayi* Spinola, 1851, designated by Sandhouse, 1943:534. **Caupolicanini**.
- Caupolicania* Schulz, 1906:238, unjustified emendation of *Caupolicana* Spinola, 1851. **Caupolicanini**.
- Caupolicanoides* Michener, 1966a:725. Type species: *Caupolicana pubescens* Smith, 1879, by original designation. **Caupolicanini**.
- Ceblurgus* Urban and Moure, 1993:102. Type species: *Ceblurgus longipalpis* Urban and Moure, 1993, by original designation. **Rophitinae**.
- Celestanrena* LaBerge and Hurd, 1965:188. Type species: *Andrena vinnula* LaBerge and Hurd, 1965, by original designation. [Andrena]. **Andreninae**.
- Celetrigona* Moure, 1950a:246. Type species: *Trigona longicornis* Friese, 1903, by original designation. [Hypotrigona]. **Meliponini**.
- Cellaria* Friese, 1913a:575, not Ellis and Solander, 1786. Type species: *Nomiooides arnoldi* Friese, 1913 = *Nomiooides somalica* Magretti, 1899, monobasic. [Nomiooides]. See *Cellariella*. **Nomiooidinae**.
- Cellariella* Strand, 1926:53, replacement for *Cellaria* Friese, 1913. Type species: *Nomiooides arnoldi* Friese, 1913 = *Nomiooides somalica* Magretti, 1899, autobasic. [Nomiooides]. **Nomiooidinae**.
- Cemolobus* Robertson, 1902b:324. Type species: *Xenoglossa ipomoeae* Robertson, 1891, by original designation. **Eucerini**.
- Centrias* Robertson, 1903d:174, 176. Type species: *Nomada erigeronis* Robertson, 1897, by original designation. **Nomadini**.
- Centris* Fabricius, 1804:354. Type species: *Apis haemorrhoidalis* Fabricius, 1775, designation by Commission Opinion 567 (1959). The designation of *Apis dimidiata* Fabricius, 1793, a euglossine bee, by Blanchard, 1840:405, and the designation of *Apis hirtipes* Fabricius, 1793 = *Apis rustica* Olivier, 1789, by Blanchard, 1849:pl. 128 bis (1846), are invalidated. Isotypic with *Hemisia*. **Centridini**.
- Centrosmia* Robertson, 1903a:165, 166. Type species: *Osmia bucephala* Cresson, 1864, by original designation. **Osmiini**.
- Cephalapis* Cockerell, 1910e:23. Type species: *Chelostoma jacintanum* Cockerell, 1910, monobasic. [Chelostoma]. **Osmiini**.
- Cephalictoides* Cockerell, 1924c:244. Type species: *Halictoides paradoxus* Morawitz, 1867, by original designation. [Halictoides]. **Rophitinae**.
- Cephalocolletes* Michener, 1989:656. Type species: *Biglossa laticeps* Friese, 1906, by original designation. [Leioproctus]. **Colletinae**.
- Cephalosmia* Sladen, 1916a:270. Type species: *Osmia armaticeps* Cresson, 1878 = *Osmia montana* Cresson, 1864, monobasic. **Osmiini**.
- Cephalotrigona* Schwarz, 1940:10. Type species: *Trigona capitata* Smith, 1854, by original designation. [Trigona]. **Meliponini**.
- Cephalurgus* Moure and Lucas de Oliveira, 1962:2. Type species: *Cephalurgus anomalus* Moure and Lucas de Oliveira, 1962, by original designation. **Panurginae**.

- Cephalylaeus* Michener, 1942:273. Type species: *Prosopis basalis* Smith, 1853, by original designation. [Hylaeus]. **Hylaeinae.**
- Cephen* Robertson, 1903d:174, 176. Type species: *Nomada texana* Cresson, 1872, by original designation. **Nomadini.**
- Cephalaeus* Moure, 1972:280. Type species: *Hylaeus larocai* Moure, 1972, by original designation. [Hylaeus]. **Hylaeinae.**
- Ceratheriades* Tkalcú, 1984a:5. Type species: *Archeriades petersi* Tkalcú, 1984, by original designation. [Archeriades]. **Osmiini.**
- Ceraplastes* Gistel, 1848:x, unjustified replacement for *Stelis* Panzer, 1806. Type species: *Apis aterrima* Panzer, 1798, not Christ, 1791 = *Apis punctulatissima* Kirby, 1802, autobasic. Isotypic with *Gynnus*, *Stelis*, *Trachusa* Jurine, and *Gyrodroma* Klug. **Anthidiini.**
- Ceratalictus* Moure, 1943b:463. Type species: *Oxystoglossa theia* Schrottky, 1911, by original designation. **Augochlorini.**
- Ceratias* Robertson, 1903a:172, not Kroyer, 1845. Type species: *Megachile pugnatus* Say, 1837, by original designation. See *Sayapis*. Isotypic with *Gnathocera* by synonymy. **Megachilini.**
- Ceratina* Latreille, 1802b:380. Type species: *Hylaeus albilibris* Fabricius, 1793 = *Apis cucurbitina* Rossi, 1792, monobasic. Westwood, 1840a:85, designated *Apis coerulea* Villers, 1789, and Blanchard, 1840:409, designated *Apis callosa* Fabricius, 1794, as the type species. Placed on Official List of Generic Names in Zoology, Opinion 1011 of the Commission (1973). Isotypic with *Clavicera*. **Ceratinini.**
- Ceratinidia* Cockerell and Porter, 1899:406. Type species: *Ceratina hieroglyphica* Smith, 1854, by original designation. [Ceratina]. **Ceratinini.**
- Ceratinula* Moure, 1941a:78. Type species: *Ceratina lucidula* Smith, 1854, by original designation. **Ceratinini.**
- Ceratocolletes* Michener, 1965a:63. Type species: *Lamprocolletes antennatus* Smith, 1879, by original designation. [Leioproctus]. **Colletinae.**
- Ceratomonia* Michener, 1981:20. Type species: *Ceratomonia rozenorum* Michener, 1981, by original designation. **Meganomiinae.**
- Ceratopsithyrus* Pittioni, 1949:270. Type species: *Psithyrus klapperichi* Pittioni, 1949 = *Psithyrus cornutus* Frison, 1933, monobasic. [Psithyrus]. **Bombini.**
- Ceratorhiza* Hirashima, 1978:81. Type species: *Palaeorhiza conica* Michener, 1965, by original designation. [Palaeorhiza]. **Hylaeinae.**
- Ceratosmia* Thomson, 1872:232. Type species: *Apis bicornis* Linnaeus, 1758 = *Apis rufa* Linnaeus, 1758, designated by Sandhouse, 1939: 9. [Osmia]. Isotypic with *Osmia* and *Amblys*; isotypic with *Pachyosmia* by synonymy. **Osmiini.**
- Cercorrhiza* Hirashima, 1982b:88. Type species: *Palaeorhiza gressittorum* Hirashima, 1975, by original designation. [Palaeorhiza]. **Hylaeinae.**
- Cerianthidium* Friese, 1923:304. Type species: *Trachusa strigata* Panzer, 1805, by designation of Cockerell, 1925a:361. [Anthidium]. Isotypic with *Anthidiellum*. **Anthidiini.**
- Ceroliopoeum* Ruz, 1991:237. Type species: *Camptopoeum laetum* Vachal, 1909, by original designation. [Calliopsis]. **Panurginae.**
- Cestella* Pasteels, 1965:547. Type species: *Megachile cestifera* Benoit, 1954, by original designation. [Chalicodoma]. **Megachilini.**
- Ceylalictus* Strand, 1913a:137. Type species: *Halictus horni* Strand, 1913, monobasic. [Halictus]. **Nomioidinae.**
- Ceylonicola* Friese, 1918:501. Type species: *Ceylonicola atra* Friese, 1918 = *Sudila bidentata* Cameron, 1898, by designation of Sandhouse, 1943:536. Isotypic with *Sudila* by synonymy. **Halictini.**
- Chacoana* Holmberg, 1887b: 225, nomen nudum. **Tapinotaspidini.**
- Chacoana* Holmberg, 1903:432. Type species: *Chacoana melanoxantha* Holmberg, 1903 = *Caenonomada bruneri* Ashmead, 1899, monobasic. Isotypic with *Caenonomada* by synonymy. **Tapinotaspidini.**
- Chaetalictus* Michener, 1978a:509. Type species: *Halictus pearstonensis* Cameron, 1905, by original designation. [Patellapis]. **Halictini.**
- Chaetochile* Mitchell, 1980:63. Type species: *Cressoniella golbachii* Schwimmer, 1980, by original designation. [Cressoniella]. **Megachilini.**
- Chaetohesma* Exley, 1978:373. Type species: *Chaetohesma tuberculata* Exley, 1978, by original designation. **Euryglossinae.**
- Chaetostetha* Michener, 1942:281. Type species: *Exomalopsis pyropyga* Friese, 1925, by original designation. **Tapinotaspidini.**
- Chaeturinus* Lucas de Oliveira and Moure, 1963:575. Type species: *Rhophitulus testaceus* Ducke, 1907, by original designation. **Panurginae.**
- Chalcobombus* Cockerell, 1908d:326. Type species: *Chalcobombus humilis* Cockerell, 1908, designated by Cockerell, 1909e:11. **Fossil.**
- Chalcosmia* Schmiedeknecht, 1885:20. Type species: *Apis fulviventris* Panzer, 1798 (not Scopoli, 1763) = *Apis niveata* Fabricius, 1804, by designation of Sandhouse, 1939:13. [Osmia]. **Osmiini.**
- Chalepogenoides* Michener, 1942:279. Type species: *Chalepogenus leucostoma* Cockerell, 1923, by original designation. **Tapinotaspidini.**
- Chalepogenus* Holmberg, 1903:416. Type species: *Chalepogenus incertus* Holmberg, 1903 = *Tetrapedia muelleri* Friese, 1899, by designation of Sandhouse, 1943:537. Sandhouse considered *Chalepogenus* to be monobasic, but Holmberg named two "varieties" of *C. incertus*, and thus included three taxa. Isotypic with *Desmotetrapedia* by synonymy. **Tapinotaspidini.**
- Chalicodoma* Lepeletier, 1841:309. Type species: *Apis muraria* Olivier, 1789 (as *Xylocopa muraria* Fabricius, 1804) = *Apis parietina* Fourcroy, 1785, by designation of Girard, 1879:778. **Megachilini.**

- Chalicodomoides* Michener, 1962:24. Type species: *Megachile aethiops* Smith, 1853, by original designation. [Chalicodoma]. **Megachilini.**
- Charitandrena* Hedicke, 1933:210. Type species: *Nomada hattorfiana* Fabricius, 1775, by original designation. [Andrena]. **Andreninae.**
- Chaulandrena* LaBerge, 1964:314. Type species: *Andrena porterae* Cockerell, 1900, by original designation. [Andrena]. **Andreninae.**
- Cheesmania* Hirashima, 1981b:27. Type species: *Palaeorhiza amabilis* Hirashima, 1981, by original designation. [Palaeorhiza]. **Hylaeinae.**
- Chelostoma* Latreille, 1809:161. Type species: *Apis maxillosa* Linnaeus, 1767 = *Apis florisomnis* Linnaeus, 1758, monobasic. **Osmiini.**
- Chelostomoda* Michener, 1962:24. Type species: *Megachile spissula parvula* Strand, 1913 = *M. spissula* Cockerell, 1911, by original designation. [Chalicodoma]. **Megachilini.**
- Chelostomoidella* Snelling, 1990:36. Type species: *Megachile spinotulata* Mitchell, 1934, by original designation. [Chalicodoma]. **Megachilini.**
- Chelostomoides* Robertson, 1901:231. Type species: *Megachile rufimanus* Robertson, 1891 = *Chelostoma rugifrons* Smith, 1854, monobasic. **Megachilini.**
- Chelostomopsis* Cockerell, 1925b:205. Type species: *Chelynia rubifloris* Cockerell, 1898, by original designation. Isotypic with *Raphidostoma* by synonymy. **Osmiini.**
- Chelynia* Provancher, 1888:322. Type species: *Chelynia labiata* Provancher, 1888, monobasic. **Anthidiini.**
- Chenosmia* Sinha, 1958:233. Type species: *Osmia penstemonis* Cockerell, 1906, by original designation. **Osmiini.**
- Chilalictus* Michener, 1965a:174. Type species: *Halictus subinclinans* Cockerell, 1915, by original designation. [*Lasioglossum*]. **Halictini.**
- Chilicola* Spinola, 1851:210. Type species: *Chilicola rubriventris* Spinola, 1851, by designation of Sandhouse, 1943:537. **Xeromalissinae.**
- Chilicolletes* Michener, 1989:640. Type species: *Leioproctus delahozi* Toro, 1973, by original designation. [Leioproctus]. **Colletinae.**
- Chilimalopsis* Toro, 1976:73. Type species: *Chilimalopsis parvula* Toro, 1976, by original designation. **Exomalopsini.**
- Chilimelissa* Toro and Moldenke, 1979:149. Type species: *Chilimelissa luisa* Toro and Moldenke, 1979, by original designation. **Xeromalissinae.**
- Chilioediscelis* Toro and Moldenke, 1979:104. Type species: *Chilicola andina* Toro and Moldenke, 1979, by original designation. [Chilicola]. **Xeromalissinae.**
- Chilosima* Michener, 1939:78. Type species: *Ashmeadiella rhodognatha* Cockerell, 1924, by original designation. [Ashmeadiella]. **Osmiini.**
- Chlerogas* Vachal, 1904:127. Type species: *Halictus chlerogas* Vachal, 1904, monobasic and absolute tautonomy. **Augochlorini.**
- Chlerogella* Michener, 1954:75. Type species: *Chlerogella elongaticeps* Michener, 1954, by original designation. **Augochlorini.**
- Chloralictus* Robertson, 1902c:245, 248. Type species: *Halictus cressoni* Robertson, 1890, by original designation. **Halictini.**
- Chlorandrena* Pérez, 1890:172. Type species: *Andrena humilis* Imhoff, 1832, by designation of Hedicke, 1933:211. [Andrena]. **Andreninae.**
- Chloranthidiellum* Mavromoustakis, 1963b:491. Type species: *Anthidium flavescens* Friese, 1925, by original designation. [Anthidiellum]. **Anthidiini.**
- Chloranthidium* Pasteels, 1969a:48, *lapsus* for *Chloranthidiellum* Mavromoustakis, 1963. [Anthidiellum]. **Anthidiini.**
- Chloroceratina* Cockerell, 1918a:143. Type species: *Ceratina cyanura* Cockerell, 1918, by original designation. [Ceratina]. **Ceratinini.**
- Chlorosmia* Sladen, 1916a:270. Type species: *Osmia fulgida* Cresson, 1864, monobasic. **Osmiini.**
- Chromobombus* Dalla Torre, 1880:40. Type species: *Apis muscorum* Linnaeus, 1758, by designation of Sandhouse, 1943:538. [Bombus]. **Bombini.**
- Chrysandrena* Hedicke, 1933:211. Type species: *Apis fulvago* Christ, 1791, by original designation. [Andrena]. **Andreninae.**
- Chrysantheda* Perty, 1833:147. Type species: *Chrysantheda nitida* Perty, 1833 = *Apis dentata* Linnaeus, 1758, monobasic. Isotypic with *Caliendra*; isotypic with *Exaerete* by synonymy. **Euryglossini.**
- Chrysocolletes* Michener, 1965a:71. Type species: *Paracolletes moretonianus* Cockerell, 1905, by original designation. [Leioproctus]. **Colletinae.**
- Chrysopheon* Titus, 1901:256. Type species: *Chrysopheon aurifuscus* Titus, 1901, monobasic. **Dioxyini.**
- Chrysosaritus* Mitchell, 1943:664. Type species: *Megachile guaranitica* Schrottky, 1908, by original designation. [Megachile]. **Megachilini.**
- Cilissa* Leach, 1815:155. Type species: *Andrena haemorrhoidalis* Fabricius, 1775, by designation of Westwood, 1840a:84. *Melitta tricincta* Kirby, 1802, was designated subsequently by Taschenberg, 1883:52. **Melittinae.**
- Cingulata* Méhely, 1935:43, 149. Type species: *Vespa pratensis* Geoffroy, 1785 (not Miller, 1759) = *Sphex signata* Panzer, 1798, monobasic. [Prosopis]. Isotypic with *Prosopis* by synonymy. **Hylaeinae.**
- Cirroxylocopta* Hurd and Moure, 1963:102. Type species: *Xylocopa vestita* Hurd and Moure, 1963, by original designation. [Xylocopa]. **Xylocopini.**
- Citrinopsithyrus* Thorp, 1983, *in* Thorp, Horning and Dunning, 1983:50. Type species: *Apatus citrinus* Smith, 1854, by original designation. Substitute for *Laboriopsithyrus* Frison, 1927, the type species of which turns out to be an anthophorine bee of the genus *Habropoda*. **Bombini.**

- Cladocerapis* Cockerell, 1904b:292. Type species: *Lamprocolletes cladocerus* Smith, 1862 = *Lamprocolletes bipectinatus* Smith, 1856, by original designation. **Colletinae**.
- Claremontiella* Cockerell 1933c:26. Type species: *Spinoliella euxantha* Cockerell, 1916 = *Calliopsis zonalis* Cresson, 1879, by original designation. [Spinoliella]. Isotypic with *Nomadopsis* by synonymy. **Panurginae**.
- Clavicera* Latreille, 1802a:432. Type species: *Hylaeus albilabris* Fabricius, 1793 = *Apis cucurbitina* Rossi, 1792, monobasic. Suppressed by Commission Opinion 1011 (1973). Isotypic with *Ceratina*. **Ceratinini**.
- Clavinomia* Warneke, 1980:372. Type species: *Nomia clavicornis* Warneke, 1980, by original designation. [Nomia]. **Nomiinae**.
- Clavipanurgus* Warneke 1972:95. Type species: *Panurgus clavatus* Warneke, 1972, by original designation. [Panurgus]. **Panurginae**.
- Cleptotrigona* Moure, 1961:219. Type species: *Lestrimelitta cubiceps* Friese, 1912, by original designation. [Lestrimelitta]. **Meliponini**.
- Clisodon* Patton, 1879a:479. Type species: *Anthophora terminalis* Cresson, 1869, by original designation. **Anthophorini**.
- Clistanthidium* Michener and Griswold, 1994a:315. Type species: *Dianthidium turnericum* Mavromoustakis, 1934, by original designation. [Eoanthidium]. **Anthidiini**.
- Clypanthidium* Pasteels, 1968a:1060. Type species: *Anthidium ruficeps* Friese, 1914, by original designation. Also described as new by Pasteels, 1969a:53. [Bathanthidium]. **Anthidiini**.
- Cnemidandrena* Hedicke, 1933:213. Type species: *Melitta nigriceps* Kirby, 1802, by original designation. [Andrena]. **Andreninae**.
- Cnemidium* Perty, 1833:148, not Goldfuss, 1826. Type species: *Cnemidium viride* Perty, 1833, monobasic. See *Euglossella*. **Euglossini**.
- Cnemidorhiza* Hirashima, 1981a:1. Type species: *Prosopis elegans* Smith, 1864 = *Prosopis elegantissima* Dalla Torre, 1896, by original designation. [Palaeorhiza]. **Hylaeinae**.
- Coccineobombus* Skorikov, 1922b:157. Type species: *Bombus coccineus* Friese, 1903, by designation of Sandhouse, 1943:539. [Alpigenobombus]. **Bombini**.
- Cockerellia* Ashmead, 1898:284. Type species: *Perdita hyalina* Cresson, 1878 = *Perdita albipennis* Cresson, 1865, by original designation. **Panurginae**.
- Cockerellula* Strand, 1932:196, replacement for *Lutziella* Cockerell, 1922. Type species: *Perdita opuntiae* Cockerell, 1922, autobasic. **Panurginae**.
- Coelioxita* Pasteels, 1977:180. Type species: *Coelioxys afra* Lepeletier, 1841, by original designation. Isotypic with *Allococelioxys*. **Megachilini**.
- Coelioxoides* Cresson, 1878:94. Type species: *Coelioxoides punctipennis* Cresson, 1878, monobasic. **Tetrapediini**.
- Coelioxula* Pasteels, 1982:110. Type species: *Coelioxys rufocaudata* Smith, 1854 = *Coelioxys ruficauda* Lepeletier, 1841, by original designation. **Megachilini**.
- Coelioxys* Latreille, 1809:166. Type species: *Apis conica* Linnaeus, 1758 = *Apis quadridentata* Linnaeus, 1758, by designation of Curtis, 1831, pl. 349 and Westwood, 1840a:85. Latreille's designation, 1810:439, is not acceptable because he listed two species names, not indicating that they were synonyms. He treated them as he treated dissimilar species in certain other cases, e.g., *Centris*. **Megachilini**.
- Colax* Lepeletier and Serville, 1825:4, 213, nomen nudum.
- Colax* Lepeletier and Serville, 1828:448, not Hübner, 1819. Type species: *Rhathymus bicolor* Lepeletier and Serville, 1828, monobasic. *Colax* was shown as a synonym of *Rhathymus*. It is not only a junior homonym of *Colax* Hübner but is not available according to the Code, ed. 3, Art. 11(c) because it was proposed in synonymy. Isotypic with *Rhathymus*; isotypic with *Liogastra* by synonymy. **Rhathymini**.
- Colletelus* Michener, 1965a:70. Type species: *Andrenopsis velutinus* Cockerell, 1929 (not *Paracolletes velutinus* Cockerell, 1929, homonym in *Leioproctus*) = *Leioproctus velutinellus* Michener, 1965, by original designation. [Leioproctus]. **Colletinae**.
- Colletes* Latreille, 1802a:423. Type species: *Apis succincta* Linnaeus, 1758, monobasic. *Colletes hirta* Lepeletier and Serville, 1825 = *Apis cunicularia* Linnaeus, 1758, designated as type by Blanchard, 1849, pl. 125 (1847), was not originally included. Isotypic with *Evodia* by synonymy. **Colletinae**.
- Colletopsis* Michener, 1965a:58. Type species: *Leioproctus contrarius* Michener, 1965, by original designation. [Leioproctus]. **Colletinae**.
- Colocynthiphila* Moure, 1948:342. Type species: *Tetralonia fervens* Smith, 1879, by original designation. [Peponapis]. **Eucerini**.
- Comeptila* Moure and Michener, 1955b:304. Type species: *Thyreothremma paraguayensis* Brèthes, 1909, by original designation. [Melissoptila]. **Eucerini**.
- Compsoclepta* Moure, 1995:143. Type species: *Compsoclepta fasciata* Moure, 1995 = *Osirinus lemniscatus* Roig-Alsina, 1989, by original designation. This synonymy was indicated by D. Urban in litt. (1996). Isotypic with *Osirinus* by synonymy. **Osirini**.
- Compsomelissa* Alfken, 1924:251. Type species: *Compsomelissa borneri* Alkfen, 1924, monobasic. Isotypic with *Exoneurula* by synonymy. **Allocladini**.
- Conandrena* Viereck, 1924:20. Type species: *Andrena bradleyi* Viereck, 1907, by original designation. [Andrena]. **Andreninae**.
- Conanthalictus* Cockerell, 1901b:209. Type species: *Halictus conanthi* Cockerell, 1901, monobasic. [Halictus]. **Rophitinae**.
- Confusibombus* Ball, 1914:78. Type species: *Bombus confusus* Schenck, 1859, monobasic. [Bombus]. Isotypic with *Sulcobombus* and *Confusobombus*. **Bombini**.

- Confusobombus* Skorikov, 1922b:156. Type species: *Bombus confusus* Schenck, 1859, by designation of Richards, 1968:214. Isotypic with *Sulcobombus* and *Confusibombus*. **Bombini**.
- Congotrachusa* Pasteels, 1969a:24. Type species: *Anthidium schoutedeni* Vachal, 1910, by original designation. [Trachusa]. **Anthidiini**.
- Conohalicoides* Viereck, 1904a:245; also described as new in 1904b:261. Type species: *Conohalicoides lovelli* Viereck, 1904 = *Panurgus novaeangliae* Robertson, 1897, by original designation. **Rophitinae**.
- Copoxyla* Maa, 1954:211. Type species: "Apis *iris* Christ," 1791 = *Xylocopa cyanescens* Brullé, 1832, by original designation. Christ's work is largely binomial but a section on bees is trinominal and the names published there are not valid. Nonetheless the identity of the type species was clearly indicated by Maa's designation using a common appellation, *iris* Christ, for the species concerned. [Xylocopa]. **Xylocopini**.
- Coptepeolus* Moure, 1955:120. Type species: *Coptepeolus emarginatus* Moure, 1955, by original designation. **Epeolini**.
- Coptorthosoma* Pérez, 1901:3, unjustified emendation of *Koptortosoma* Gribodo, 1894. **Xylocopini**.
- Coquillettapis* Viereck, 1909:47. Type species: *Coquillettapis melittoides* Viereck, 1909 = *Melissodes nigritrons* Cresson, 1878, by original designation. **Emphorini**.
- Corbicula* Friese, 1908b:59, also 1908c:170, not Megerle, 1811. Type species: *Corbicula apiformis* Friese, 1908, monobasic. See *Canephorula*. **Eucerini**.
- Cordandrena* Warncke, 1968:63. Type species: *Andrena cordialis* Morawitz, 1878, by original designation. [Andrena]. **Andreninae**.
- Cornylaeus* Snelling, 1985:8. Type species: *Prosopis aterrima* Friese, 1911, by original designation. [Hylaeus]. **Hylaeinae**.
- Corynogaster* Sichel, 1867:146. Type species: *Corynura gayi* Spinola, 1851 = *Halictus rubellus* Haliday, 1836, designated by Daly, Michener, Moure, and Sakagami, 1987:104; these authors explained the invalidity of Sandhouse's (1943:540) designation due to her confusion of *Halictus gayi* Spinola and *Corynura gayi* Spinola. Isotypic with *Corynura*. **Augochlorini**.
- Corynura* Spinola, 1851:296. Type species: *Corynura gayi* Spinola, 1851 = *Halictus rubellus* Haliday, 1836, designated by Alfken, 1926a:146. Sandhouse, 1943:540, subsequently designated the same species. Isotypic with *Corynogaster*. **Augochlorini**.
- Corynurella* Eickwort, 1969:398. Type species: *Corynurella mourei* Eickwort, 1969, by original designation. **Augochlorini**.
- Corynuroides* Sandhouse, 1943:540, replacement for *Corynuropsis* Cockerell, 1901. Type species: *Corynura darwini* Cockerell, 1901 = *Augochlora briseis* Smith, 1879, autobasic. **Augochlorini**.
- Corynuropsis* Cockerell, 1901a:220, not Scott, 1894. Type species: *Corynura darwini* Cockerell, 1901 = *Augochlora briseis* Smith, 1879, by original designation. [Corynura]. See *Augochlorini*.
- Corynuroides* Michener, 1939:74. Type species: *Ashmeadiella inyoensis* Michener, 1939, by original designation. [Ashmeadiella]. **Osmiini**.
- Crawfordapis* Moure, 1964a:448. Type species: *Megacilissa luctuosa* Smith, 1861, by original designation. [Zikanapis]. **Caupolicanini**.
- Creightonella* Cockerell, 1908b:146. Type species: *Megachile mitimia* Cockerell, 1908 = *Megachile cognata* Smith, 1853, by original designation. [Megachile]. **Megachilini**.
- Creightoniella* Pasteels, 1965:10, error for *Creightonella* Cockerell, 1908. **Megachilini**.
- Cremandrena* LaBerge, 1986:554. Type species: *Andrena anisochlora* Cockerell, 1936, by original designation. [Andrena]. **Andreninae**.
- Cressoniella* Mitchell, 1934:307. Type species: *Megachile "zapoteka" Cresson* = *M. zapoteca* Cresson, 1878, by original designation. [Megachile]. **Megachilini**.
- Crewella* Cockerell, 1903b:202. Type species: *Ceratina titusi* Cockerell, 1903, by original designation. [Ceratina]. **Ceratinini**.
- Crinoglossa* Friese, 1925b:502. Type species: *Crinoglossa natalensis* Friese, 1925, monobasic. **Nomiinae**.
- Crocisa* Jurine, 1801:164. Type species: *Nomada scutellata* Jurine, 1801 = *Melecta histrionica* Illiger, 1806, by designation of Morice and Durrant, 1915:423. Invalidated by Commission Opinion 135 (1939). **Melectini**.
- Crocisa* Jurine, 1807:239. Type species: *Nomada histrio* Fabricius, 1775, by designation of Latreille, 1810:439. *Nomada scutellaris* Fabricius, 1781, was designated by Michener, 1965a:218. *Crocisa ramosa* Lepeletier, 1841, was designated as type species by Blanchard, 1849:pl. 128 (1847) but was not originally included. **Melectini**.
- Crocisaspidea* Ashmead, 1899a:68. Type species: *Crocisaspidea chandleri* Ashmead, 1899, by original designation. **Nomiinae**.
- Crocissa* Panzer, 1806:263. Type species: *Nomada scutellaris* Fabricius, 1781, by designation of Sandhouse, 1943:541. This name was published as a synonym of *Thyreus* and was credited to Jurine; presumably it was an error for *Crocisa*. Isotypic with *Thyreus*. **Melectini**.
- Crotchiibombus* Franklin, 1954:51. Type species: *Bombus crotchii* Cresson, 1878, by original designation. [Bombus]. **Bombini**.
- Cryptandrena* Pittioni, 1948:49, not Lanham, 1949. Type species: *Andrena ventricosa* Dours, 1873, by original designation. [Andrena]. **Andreninae**.
- Cryptandrena* Lanham, 1949:222, not Pittioni, 1948. Type species: *Andrena carlini* Cockerell, 1901, by original designation. [Andrena]. See *Bythandrena*. **Andreninae**.
- Cryptohalictoides* Viereck, 1904b:261. Type species: *Cryptohalictoides spiniferus* Viereck, 1904, by original designation. **Rophitinae**.

- Cryptosmia* Yasumatsu and Hirashima, 1950:14. Type species: *Osmia satoi* Yasumatsu and Hirashima, 1950, by original designation. [Osmia]. **Osmiini**.
- Ctenanthidium* Urban, 1993:85. Type species: *Ctenanthidium gracile* Urban, 1991, by original designation. **Anthidiini**.
- Ctenaugochlora* Eickwort, 1969:435. Type species: *Neocorynura perfectinata* Michener, 1954, by original designation. [Caenaugochlora]. **Augochlorini**.
- Ctenioschelus* Romand, 1840:336. Type species: *Acanthopus goryi* Romand, 1840, monobasic. Taschenberg, 1883:78, designated as type species *Melissoda latreillei* Lepeletier, 1841 = *Acanthopus goryi* Romand, 1840. Isotypic with *Ischnocera* and *Melissoda* by synonymy. **Ericocidini**.
- Ctenoapis* Cameron, 1901a:116. Type species: *Ctenoapis lutea* Cameron, 1901, by designation of Sandhouse, 1943:542. **Pararhophitini**.
- Ctenoceratina* Daly and Moure, 1988, in Daly, 1988:12. Type species: *Ceratina armata* Smith, 1854, by original designation. **Ceratinini**.
- Ctenocolletes* Cockerell, 1929c:358. Type species: *Stenotritus nicholsoni* Cockerell, 1929, monobasic. [Stenotritus]. **Stenotritidae**.
- Ctenocorynura* Schrottky, 1914:628. Type species: *Ctenocorynura vernoniae* Schrottky, 1914 = *Halictus inflaticeps* Ducke, 1906, by original designation. Isotypic with *Rhinocorynura* by synonymy. **Augochlorini**.
- Ctenonomia* Cameron, 1903b:178. Type species: *Ctenonomia carinata* Cameron, 1903, monobasic. **Halictini**.
- Ctenoplectra* Kirby, 1826, in Kirby and Spence, 1826:681, no species. Type species: *Ctenoplectra chalybea* Smith, 1858, by inclusion and designation of Sandhouse, 1943:542. Isotypic with *Ctenoplectra* Smith. **Ctenoplectrini**.
- Ctenoplectra* Smith, 1858:44. Type species: *Ctenoplectra chalybea* Smith, 1858, monobasic. Homonym and synonym of *Ctenoplectra* Kirby, 1826. Isotypic with *Ctenoplectra* Kirby. **Ctenoplectrini**.
- Ctenoplectrella* Cockerell, 1909d:314; also described as new by Cockerell, 1909e:19. Type species: *Ctenoplectrella viridiceps* Cockerell, 1909, monobasic. **Fossil**.
- Ctenoplectrina* Cockerell, 1930a:360. Type species: *Ctenoplectra politula* Cockerell, 1930, monobasic. [Ctenoplectra]. **Ctenoplectrini**.
- Ctenopoda* Ma, 1938:285, not McAtee and Malloch, 1933. Type species: *Apis fenestrata* Fabricius, 1798, by original designation. [Xylocopa]. See *Ctenoxylocopa* Michener and Baana Sandhouse. **Xylocopini**.
- Ctenosibyne* Moure, 1956:311. Type species: *Lonchopria cingulata* Moure, 1956, by original designation. [Lonchopria]. **Colletinae**.
- Ctenosmia* Thomson, 1872:233. Type species: *Apis adunca* Panzer, by designation of Michener, 1941:158. Isotypic with *Hoplitis*. **Osmiini**.
- Ctenoxylocopa* Michener, 1942:282, replacement for *Ctenopoda* Ma, 1938. Type species: *Apis fenestrata* Fabricius, 1798, autobasic. [Xylocopa]. **Xylocopini**.
- Cubiandrena* Warncke, 1968:76. Type species: *Andrena cubiceps* Friese, 1914, by original designation. [Andrena]. **Andreninae**.
- Cubitalia* Friese, 1911d:136. Type species: *Eucera breviceps* Friese, 1911, monobasic. [Eucera]. **Eucerini**.
- Cubitognatha* Michener, 1939:81. Type species: *Ashmeadiella xenomastax* Michener, 1939, by original designation. [Ashmeadiella]. **Osmiini**.
- Cullumanibombus* Skorikov, 1938a:145, unjustified emendation of *Cullumanobombus* Vogt, 1911. **Bombini**.
- Cullumanobombus* Vogt, 1911:57. Type species: *Apis cullumana* Kirby, 1802, by designation of Frison, 1927:66. [Bombus]. **Bombini**.
- Curtisapis* Robertson, 1918a:91. Type species: *Halictus coriaceus* Smith, 1853, by original designation. **Halictini**.
- Curvinomia* Michener, 1944:251. Type species: *Nomia californiensis* Michener, 1937 = *Nomia tetrazonata* Cockerell, 1910, by original designation. [Nomia]. **Nomiinae**.
- Cuspidella* Pasteels, 1965:544. Type species: *Chalicodoma quadraticeps* Pasteels, 1965, by original designation. [Chalicodoma]. **Megachilini**.
- Cyaneoderes* Ashmead, 1899a:70. Type species: *Cyaneoderes fairchildi* Ashmead, 1899 = *Bombus coeruleus* Fabricius, 1804, by original designation. **Xylocopini**.
- Cyanocentris* Friese, 1900:244, 251. Type species: *Apis versicolor* Fabricius, 1775, by designation of Sandhouse, 1943:543. [Centris]. **Centridini**.
- Cyathocera* Smith, 1875:47. Type species: *Cyathocera nodicornis* Smith, 1875, monobasic. **Nomiinae**.
- Cyphanthidium* Pasteels, 1969a:57. Type species: *Cyphanthidium intermedium* Pasteels, 1969, by original designation. **Anthidiini**.
- Cyphepicharis* Moure, 1945b:306. Type species: *Cyphepicharis borgmeieri* Moure, 1945, by original designation. **Centridini**.
- Cyphomelissa* Schrottky, 1902a:493. Type species: *Cyphomelissa pernigra* Schrottky, 1902 = *Melissa diabolica* Friese, 1900, by original designation. **Ericocidini**.
- Cyphopyga* Robertson, 1903a:169, 172. Type species: *Megachile montivaga* Cresson, 1878, by original designation. **Megachilini**.
- Cyphoxylocopa* Hurd and Moure, 1963:283. Type species: *Xylocopa ocularis* Pérez, 1901, by original designation. [Xylocopa]. **Xylocopini**.
- Cyprizophites* Warneke, 1979:135. Type species: *Dufourea caeruleocephala cypria* Mavromoustakis, 1952, by original designation. [Rophites]. **Rophitinae**.
- Cyrtapis* Cockerell, 1908c:339. Type species: *Cyrtapis anomalus* Cockerell, 1908, monobasic. **Fossil**.
- Cyrtocoelioxys* Mitchell, 1973:106. Type species: *Coelioxys costaricensis* Cockerell, 1914, by original designation. [Coelioxys]. **Megachilini**.
- Cyrtopasites* Mavromoustakis, 1963d:753. Type species: *Schmiedeknechtia verhoeffi* Mavromoustakis, 1959, by original designation. [Schmiedeknechtia]. **Ammobatoidini**.

- Cyrtosmia* Michener, 1947:292. Type species: *Osmia hypocrita* Cockerell, 1906, by original designation. [Hoplitis]. **Osmiini**.
- Dactylandrena* Viereck, 1924:20. Type species: *Andrena maura* Viereck, 1924 = *Andrena caliginosa* Viereck, 1916, by original designation. [Andrena]. **Andreninae**.
- Dactylomegachile* Mitchell, 1943:670. Type species: *Megachile parsoniae* Schrottky, 1914, by original designation. [Megachile]. **Megachilini**.
- Dactylurina* Cockerell, 1934b:47. Type species: *Trigona staudingeri* Gribodo, 1893, by original designation. **Meliponini**.
- Dalloapula* Michener, 1975:246. Type species: *Allodape dictroa* Strand, 1915, by original designation. [Allodapula]. **Allodapini**.
- Dasiapis* Cockerell, 1903c:450. Type species: *Dasiapis ochracea* Cockerell, 1903, monobasic. **Emphorini**.
- Dasyandrena* LaBerge, 1977:71. Type species: *Andrena obscuripostica* Viereck, 1916, by original designation. [Andrena]. **Andreninae**.
- Dasybombus* Labougle and Ayala, 1985:49. Type species: *Bombus macgregori* Labougle and Ayala, 1985, by original designation. [Bombus]. **Bombini**.
- Dasycoelioxys* Mitchell, 1973:99. Type species: *Coelioxys pergandei* Schletterer, 1890, by original designation. [Coelioxys]. **Megachilini**.
- Dasycolletes* Smith, 1853:14. Type species: *Dasycolletes metallicus* Smith, 1853, by designation of Cockerell, 1905a:347. **Colletinae**.
- Dasyglossa* Illiger, 1807, in Klug, 1807b:217 footnote, no valid species names; Klug, 1810:44, included valid species. Type species: *Oxaea flavescens* Klug, by designation of Sandhouse, 1943:544. Isotypic with *Oxaea*. **Oxaeinae**.
- Dasyhalonia* Michener, LaBerge, and Moure, 1955:226. Type species: *Tetralonia spiniventris* Friese, 1910 = *Tetralonia mimetica* Brèthes, 1910, by original designation. **Eucerini**.
- Dasyhesma* Michener, 1965a:102. Type species: *Dasyhesma robusta* Michener, 1965, by original designation. **Euryglossinae**.
- Dasymegachile* Mitchell, 1943:669. Type species: *Megachile saulcyi* Guérin, 1845, by original designation. [Megachile]. **Megachilini**.
- Dasymegilla* Brooks, 1988:486. Type species: *Apis quadrimaculata* Panzer, 1798, by original designation. [Anthophora]. Isotypic with *Lasius* Jurine. **Anthophorini**.
- Dasyosmia* Michener, 1947:294. Type species: *Alcidamea biscutellae* Cockerell, 1897, by original designation. [Hoplitis]. **Osmiini**.
- Dasypoda* Latreille, 1802a:424. Type species: *Andrena hirtipes* Fabricius, 1793, designated by Blanchard, 1840:414. *Melitta swammerdamiella* Kirby, 1802, designated as the type species by Curtis, 1831:367, was not originally included in *Dasypoda* but is a synonym of *Andrena hirtipes* Fabricius. **Dasypodinae**.
- Dasyseirteca* Michener, LaBerge, and Moure, 1955:218. Type species: *Tetralonia gilyva* Holmberg, 1884, by original designation. [Alloscirtetica]. **Eucerini**.
- Dasystylbe* Dressler, 1978:193. Type species: *Euglossa villosa* Moure, 1968, by original designation. [Euglossa]. **Euglossini**.
- Dasyxylocopa* Hurd and Moure, 1963:113. Type species: *Xylocopa bimaculata* Friese, 1903, by original designation. [Xylocopa]. **Xylocopini**.
- Delomegachile* Viereck, 1916:745. Type species: *Megachile vidua* Smith, 1853 = *M. latimanus* Say, 1823, monobasic. [Megachile]. Isotypic with *Xanthosarus* by synonymy. **Megachilini**.
- Deltoptila* LaBerge and Michener, 1963:211. Type species: *Habropoda montezumia* Smith, 1879, by original designation. **Anthophorini**.
- Denticolletes* Noskiewicz, 1936:25, 486. Type species: *Colletes graeffei* Alfken, 1900, monobasic. [Colletes]. **Colletinae**.
- Dentigera* Méhelÿ, 1935:45, 151. Invalid because no type species was designated. [Prosopis]. **Hylaeinae**.
- Dentigera* Popov, 1939:168. Type species: *Hylaeus brevicornis*Hylaeinae.
- Dentirophites* Warncke, 1979:130. Type species: *Dufourea gaullei* Vachal, 1897, by original designation. [Rophites]. **Rophitinae**.
- Deranchanthidium* Griswold and Michener, 1988:34. Type species: *Dianthidium chamaela* Griswold and Michener, 1988, by original designation. [Dianthidium]. **Anthidiini**.
- Deranchylaeus* Bridwell, 1919:136. Type species: *Prosopis curvicalinata* Cameron, 1905, by original designation. [Hylaeus]. **Hylaeinae**.
- Derandrena* Ribble, 1968a:333. Type species: *Andrena vandykei* Cockerell, 1936, by original designation. [Andrena]. **Andreninae**.
- Dermatohesma* Michener, 1965a:91. Type species: *Euryglossimorpha abnormis* Rayment, 1935, by original designation. [Euryglossa]. **Euryglossinae**.
- Derotropis* Mitchell, 1936:156. Type species: *Megachile pascoensis* Mitchell, 1934, by original designation. [Megachile]. **Megachilini**.
- Desmotetrapedia* Schrottky, 1909d:223. Type species: *Tetrapedia muelleri* Friese, 1899, by original designation. Isotypic with *Chalepogenus* by synonymy. **Tapinotaspidini**.
- Diadasia* Patton, 1879a:475. Type species: *Melissodes enavata* Cresson, 1872, by original designation. **Emphorini**.
- Diadasiana* Michener, 1954:130, incorrect subsequent spelling of *Diadasina* Moure, 1950. **Emphorini**.
- Diadasiella* Ashmead, 1899a:64. Type species: *Diadasiella coquilletti* Ashmead, 1899 = *Synhalonia albicans* Provancher, 1896, by original designation. **Exomalopsini**.
- Diadasina* Moure, 1950c:392. Type species: *Melitoma paraensis* Ducke, 1912, by original designation. **Emphorini**.

- Diagonozus* Enderlein, 1903:35. Type species: *Diagonozus bicometes* Enderlein, 1903, monobasic. **Halictini**.
- Dialictus* Robertson, 1902d:48. Type species: *Halictus anomalus* Robertson, 1892, by original designation. **Halictinae**.
- Dialonia* Robertson, 1903b:104. Type species: *Sphecodes antennariae* Robertson, 1891, by original designation. **Halictini**.
- Diandrena* Cockerell, 1903a:75. Type species: *Panurgus chalybaeus* Cresson, 1878, by original designation. **Andreninae**.
- Dianthidium* Cockerell, 1900b:412. Type species: *Anthidium curvatum* Smith, 1854, by original designation. [Anthidium]. **Anthidiini**.
- Diaxylotopa* Hurd and Moure, 1963:129. Type species: *Xylocopa truxali* Hurd and Moure, 1963, by original designation. [Xylocopa]. **Xylocopini**.
- Diceratosmia* Robertson, 1903a:166, 171. Type species: *Osmia 4-dentata* Cresson, 1878 = *Osmia conjuncta* Cresson, 1864, by original designation. **Osmiini**.
- Dichanthidium* Moure, 1947a:30 (January); also described as new by Moure, 1947b:235 (June). Type species: *Dichanthidium exile* Moure, 1947, by original designation. **Anthidiini**.
- Dichroa* Illiger, 1806:46. Type species: *Sphex gibba* Linnaeus, 1758, by designation of Sandhouse, 1943:545. Isotypic with *Sphecodes*. **Halictini**.
- Dicranthidium* Moure and Urban, 1975:837. Type species: *Anthidium arenarium* Ducke, 1907, by original designation. **Anthidiini**.
- Dicromonia* Michener and Brooks, 1987:100. Type species: *Agemmonia wenzeli* Michener and Brooks, 1987, by original designation. [Agemmonia]. **Meganomiinae**.
- Dictyohalictus* Michener, 1978a:518. Type species: *Halictus retigerus* Cockerell, 1940, by original designation. [Pachyhalictus]. Isotypic with *Rugalictus* by synonymy. **Halictini**.
- Didonia* Gribodo, 1894:106. Type species: *Didonia punica* Gribodo, 1894 = *Andrena mucida* Kriechbaumer, 1873, monobasic. **Andreninae**.
- Diepeolus* Gribodo, 1894:79. Type species: *Epeolus giannellii* Gribodo, 1894, monobasic. [Epeolus]. **Epeolini**.
- Dieunomia* Cockerell, 1899a:14, replacement for *Eunomia* Cresson, 1875. Type species: *Eunomia marginipennis* Cresson, 1875 = *Nomia kirbii* Smith, 1865, autobasic and by designation of Cockerell, 1910f:290. **Nomiinae**.
- Digitella* Pasteels, 1965:191. Type species: *Megachile digiticanda* Cockerell, 1937, by original designation. [Megachile]. **Megachilini**.
- Digressobombus* Laverty, Plowright, and Williams, 1984:1051. Type species: *Megabombus digressus* Milliron, 1962, by original designation. [Bombus]. **Bombini**.
- Digronoceras* Cockerell, 1931c:134. Type species: *Megachile combusta* Smith, 1853 = *Apis cincta* Fabricius, 1771, by original designation. [Gronoceras]. **Megachilini**.
- Dilobopeltis* Fairmaire, 1858:266. Type species: *Dilobopeltis fuscipennis* Fairmaire, 1858 = *Thynnus abdominalis* Fabricius, 1793, monobasic. Isotypic with *Euaspis* by synonymy. **Anthidiini**.
- Dinagapostemon* Moure and Hurd, 1982:46. Type species: *Halictus sicheli* Vachal, 1901, by original designation. **Halictini**.
- Dinavis* Pasteels, 1965:549. Type species: *Megachile muansae*Megachilini.
- Dinomia* Hirasbima, 1956:29. Type species: *Nomia taiwana*Nomiinae.
- Diuoxylocopa* Hurd and Moure, 1963:230. Type species: *Xylocopa absurdipes* Enderlein, 1903 = *Xylocopa io* Vachal, 1898, by original designation. [Xylocopa]. **Xylocopini**.
- Diomalopsis* Michener and Moure, 1957:431. Type species: *Exomalopsis bicellularis* Michener and Moure, 1957, by original designation. [Exomalopsis]. **Exomalopsini**.
- Dioxoides* Popov, 1947:89. Type species: *Coelioxys tridentata*Dioxyini.
- Dioxys* Lepeletier and Serville, 1825:109. Type species: *Trachusa cincta* Jurine, 1807, monobasic. **Dioxyini**.
- Dipedia* Friese, 1906d:92. Type species: *Ancyloscelis armatus*Emphorini.
- Diphaglossa* Spinola, 1851:168. Type species: *Diphaglossa gayi* Spinola, 1851, monobasic. **Diphaglossinae**.
- Diphysis* Lepeletier, 1841:307. Type species: *Diphysis pyrenaica* Lepeletier, 1841 = *Apis hyssina* Panzer, 1798, monobasic. Isotypic with *Trachusa* Panzer and *Megachileoides* by synonymy. **Anthidiini**.
- Disparapis* Stage, 1981, in Michener, 1981:96. Type species: *Hesperapis arenicola* Crawford, 1917, by original designation. [Hesperapis]. Dasypodinae.
- Dissoglossa* Moure, 1945a:144. Type species: *Dissoglossa stenoceratina* Moure, 1945, by original designation. **Dissoglossini**.
- Distandrena* Warncke, 1968:60. Type species: *Andrena longibarbis* Pérez, 1895, by original designation. [Andrena]. **Andreninae**.
- Dithygater* Moure and Michener, 1955b:309. Type species: *Dithygater seabrai* Moure and Michener, 1955, by original designation. **Eucerini**.
- Diversibombus* Skorikov, 1938b:1, unjustified emendation of *Diversobombus* Skorikov, 1914. **Bombini**.
- Diversobombus* Skorikov, 1914b:406. Type species: *Bombus diversus* Smith, 1869, by designation of Sandhouse, 1943:546. [Bombus]. **Bombini**.
- Dizonamegilla* Brooks, 1988:505. Type species: *Megilla sesquicincta* Erichson and Klug, 1842, by original designation. [Amegilla]. **Anthophorini**.
- Doeringiella* Holmberg, 1886a:151; 1886b:233. Type species: *Doeringiella bizonata* Holmberg, 1886, monobasic. **Epeolini**.

- Dolichochile* Viereck, 1909:49. Type species: *Dolichochile molitoides* Viereck, 1909, by original designation. **Melittinae**.
- Dolichostelis* Parker and Bohart, 1979:138. Type species: *Stelis laticincta* Cresson, 1878, by original designation. **Anthidiini**.
- Dolichotrigona* Moure, 1950a:248. Type species: *Trigona longitarsis* Ducke, 1916, by original designation. [Hypotrigona]. **Meliponini**.
- Domanthidium* Pasteels, 1969a:95. Type species: *Anthidium abdominale* Friese, 1904, by original designation. **Anthidiini**.
- Doxanthidium* Pasteels, 1969a:28. Type species: *Anthidium paradoxum* Moesáry, 1884, by original designation. **Anthidiini**.
- Drepanium* Robertson, 1903b:103. Type species: *Sphecodes falcifer* Patton, 1880 = *Sphecodes confertus* Say, 1837, by original designation. **Halictini**.
- Duckeanthidium* Moure and Hurd, 1960:2. Type species: *Anthidium megachiliforme* Ducke, 1907, by original designation. **Anthidiini**.
- Duckeola* Moure, 1944a:71. Type species: *Trigona huberi* Friese, 1901 = *Trigona ghilianii* Spinola, 1853, by original designation. **Meliponini**.
- Dufourea* Lepeletier, 1841:227. Type species: *Dufourea minuta* Lepeletier, 1841, by designation of Richards, 1935:172 and Timberlake, 1939:396. *D. vulgaris* Schenck, 1859, was not designated by Cockerell, 1924c:244, as stated by Sandhouse (1943:547), and was not originally included. **Rophitinae**.
- Ebmeria* Pesenko, 1986a:136. Type species: *Halictus costulatus* Kriechbaumer, 1873, by original designation. [Lasioglossum]. **Halictini**.
- Ebmeriana* Pagliano and Scaramozzino, 1990:127, replacement for *Micropasites* Warncke, 1983. Type species: *Ammobates minutissimus* Mavromoustakis, autobasic. [Pasites]. **Ammobatini**.
- Eclitodes* Roig-Alsina, 1989:9. Type species: *Epeolus stuardi Ruiz*, 1935, by original designation. **Osirini**.
- Echinanthidium* Pasteels, 1969a:101. Type species: *Anthidium echinatum* Klug, 1832, by original designation. [Anthidium]. **Anthidiini**.
- Echthralictus* Perkins and Cheesman, 1928:14. Type species: *Halictus extraordinarius* Kohl, 1908, by original designation. **Halictini**.
- Ecplectica* Holmberg, 1884:123. Type species: *Ecplectica tintinnans* Holmberg, 1884, monobasic. **Eucerini**.
- Edriohylaeus* Michener, 1965a:124. Type species: *Hylaeus ofarrelli* Michener, 1965, by original designation. [Hylaeus]. **Hylacinae**.
- Edwynia* Moure, 1951c:195, not Aldrich, 1930. Type species: *Pasiphae flavigaster* Spinola, 1851, by original designation. See *Edwyniana*. **Colletinae**.
- Edwyniana* Moure, 1954a:165, replacement for *Edwynia* Moure, 1951. Type species: *Pasiphae flavigaster* Spinola, 1851, autobasic. **Colletinae**.
- Effactapis* Michener, 1977:6. Type species: *Effactapis furax* Michener, 1977, by original designation. **Allodapini**.
- Egapista* Cockerell, 1904a:357, replacement for *Apista* Smith, 1861. Type species: *Apista opalina* Smith, 1861, autobasic. **Dissoglossotti**.
- Eickwortapis* Michener and Poinar, 1997:354. Type species: *Eickwortapis dominicana* Michener and Poinar, 1997, by original designation. **Fossil. Halictinae**.
- Elandrena* Lanham, 1949:203. Type species: *Andrena amplificata* Cockerell, 1910, by original designation. [Andrena]. **Andreninae**.
- Elaphropoda* Lieftinck, 1966:148. Type species: *Habropoda impatiens* Lieftinck, 1944, by original designation. **Anthophorini**.
- Elecocletes* Warneke, 1978:330. Type species: *Colletes elegans* Noskiewicz, 1936, by original designation. [Colletes]. **Colletinae**.
- Electrapis* Cockerell, 1908d:326; also described as new by Cockerell, 1909e:7. Type species: *Apis meliponoides* Buttelen, 1906, designated by Cockerell, 1909e:8. **Fossil**.
- Emphor* Patton, 1879a:476. Type species: *Melissodes bombiformis* Cresson, 1878, by original designation. **Emphorini**.
- Emphoropsis* Ashmead, 1899a:60, no included species; Cockerell and Cockerell, 1901:48, included species. Type species: *Anthophora floridana* Smith, 1854 = *Bombus laboriosus* Fabricius, 1804, by designation of Cockerell and Cockerell, 1901:48. **Anthophorini**.
- Energoponus* Holmberg, 1903:406. Type species: *Energoponus strenuus* Holmberg, 1903 = *Ptilothrix plumatus* Smith, 1853, by designation of Sandhouse, 1943:547. Isotypic with *Ptilothrix* by synonymy. **Emphorini**.
- Ensliniana* Alfken, 1938:431. Type species: *Ensliniana cuspidata* Alfken, 1938 = *Stelis bidentata* Friese, 1899, by original designation. **Dioxyini**.
- Entechnia* Patton, 1879a:476. Type species: *Anthophora taurea* Say, 1837, by original designation. **Emphorini**.
- Eoanthidiellum* Pasteels, 1969a:51. Type species: *Anthidium elongatum* Friese, 1897 = *Anthidium clypeare* Morawitz, 1873, by original designation. [Eoanthidium]. **Anthidiini**.
- Eoanthidium* Popov, 1950a:316. Type species: *Anthidium insulare* Morawitz, 1873, by original designation. [Dianthidium]. **Anthidiini**.
- Emelipona* Moure, 1992:35. Type species: *Melipona marginata* Lepeletier, 1836, by original designation. [Melipona]. **Meliponini**.
- Eopeponapis* Hurd and Linsley, 1970:20. Type species: *Xenoglossa utahensis* Cockerell, 1905, by original designation. [Peponapis]. **Eucerini**.
- Eopsithyrus* Popov, 1931a:134. Type species: *Apathus tibetanus* Morawitz, 1886, by original designation. [Psithyrus]. **Bombini**.

Eothrincostoma Blüthgen, 1930:496, 501. Type species: *Halictus torridus* Smith, 1879, by designation of Sandhouse, 1943:548. **Halictini.**

Eoxenoglossa Hurd and Linsley, 1970:34. Type species: *Melissodes strenua* Cresson, 1878, by original designation. [Xenoglossa]. **Eucerini.**

Eoxylocopa Sakagami and Yoshikawa, 1961:413, nomen nudum. [Xylocopa]. **Xylocopini.**

Epanthidium Moure, 1947a:33. Type species: *Hypanthidium tigrinum* Schrottky, 1905, by original designation. **Anthidiini.**

Epeicharis Radoszkowski, 1884:18. Type species: *Epeicharis mexicanus* Radoszkowski, 1884, monobasic. See *Fiorentinia*. **Tapinotaspidini.**

Epeoloides Giraud, 1863:44. Type species: *Epeoloides ambiguus* Giraud, 1863 = *Apis coecutiens* Fabricius, 1775, monobasic. **Osirini.**

Epeolus Latreille, 1802a:427. Type species: *Apis variegata* Linnaeus, 1758, monobasic. Isotypic with *Monoepelous*. **Epeolini.**

Epicharana Michener, 1954:144. Type species: *Apis rustica* Olivier, 1789, by original designation. [Epicharis]. **Centridini.**

Epicharis Klug, 1807, in Illiger, 1807:197, nomen nudum. **Centridini.**

Epicharis Klug, 1807b:226. Type species: *Centris umbraculata* Fabricius, 1804, by designation of Lutz and Cockerell, 1920:562. Latreille (1810) listed *Apis hirtipes* Fabricius, 1793 as the type species. This was not an originally included species but is a subjective synonym of *Apis rustica* Olivier, 1789, as is *Centris dasypoda* Klug, 1807, which was originally included. Moure (1945b, 1960) considered the type to be *Apis rustica* Olivier, the type species of *Epicharana*, because Latreille listed a synonym of *rustica* as the type species of *Epicharis*, but the Code, 3rd ed., Art. 69(a)(v), makes clear that this reasoning applies only if the author concerned (Latreille) indicated the synonymy, which he did not. Snelling (1984:59) correctly explained the situation. **Centridini.**

Epicharitides Moure, 1945b:311. Type species: *Epicharis cockerelli* Friese, 1900, by original designation. **Centridini.**

Epicharoides Radoszkowski, 1884:20. Type species: *Epicharoides bipunctatus* Radoszkowski, 1884 = *Epicharis maculatus* Smith, 1874, monobasic. **Centridini.**

Epicolpus Spinola, 1851:183. Type species: *Epicolpus gayi* Spinola, 1851, monobasic. **Ericocidini.**

Epicolpus Ashmead, 1899a:61, *lapsus* for *Epicolpus* Spinola, 1851. **Ericocidini.**

Epihalictoides Cockerell and Porter, 1899:420. Type species: *Panurgus marginatus* Cresson, 1878, monobasic. [Halictoides]. **Rophitinae.**

Epimacroteria Timberlake, 1954:377. Type species: *Perdita ainsliei* Crawford, 1932, by original designation. [Perdita]. **Panurginae.**

Epimelissodes Ashmead, 1899a:63. Type species: *Melissodes atripes* Cresson, 1872, by original designation. **Eucerini.**

Epimethea Morawitz, 1876:61. Type species: *Epimethea variegata* Morawitz, 1876, by designation of Cockerell, 1922c:1. **Panurginae.**

Epimonispractor Holmberg, 1887b:225, nomen nudum. **Exomalopsini.**

Epimonispractor Holmberg, 1903:426. Type species: *Epimonispractor gratus* Holmberg, 1903 = *Exomalopsis analis* Spinola, 1853, by designation of Sandhouse, 1943:548. Sandhouse erroneously reported original designation. **Exomalopsini.**

Epinomia Ashmead, 1899a:88. Type species: *Nomia persimilis* Cockerell, 1898 = *Nomia triangulifera* Vachal, 1897, by original designation. **Nomiinae.**

Epinomia Alfken, 1939:113, not Ashmead, 1899. Type species: *Nomia andrenoides* Vachal, 1903 = *Nomia andrei* Vachal, 1897, by original designation, [Nomia]. See *Alfkenomia*. **Nomiinae.**

Epixylocopa Hurd and Moure, 1963:223. Type species: *Xylocopa rufitarsis* Lepeletier, 1841, by original designation. [Xylocopa]. **Xylocopini.**

Erandrena LaBerge, 1986:505. Type species: *Andrena principalis* LaBerge, 1986, by original designation. [Andrena]. **Andreninae.**

Eremandrena LaBerge, 1964:295. Type species: *Pterandrena pallidiscopa* Viereck, 1904, by original designation. [Andrena]. **Andreninae.**

Eremaphanta Popov, 1940:53. Type species: *Rhophites vitellinus* Morawitz, 1876, by original designation. **Dasypodinae.**

Eremapis Ogloblin, 1956:149. Type species: *Eremapis parvula* Ogloblin, 1956, by original designation. **Exomalopsini.**

Eremopasites Linsley, 1942:131. Type species: *Townsendiella californica* Michener, 1936, by original designation. [Townsendiella]. **Townsendiellini.**

Eremoplosmia Zanden, 1991:164. Type species: *Osmia eremoplana* Mavromoustakis, 1949, by original designation. [Anthocopa]. **Osmiini.**

Eremosmia Michener, 1943:66. Type species: *Osmia robustula* Cockerell, 1935, by original designation. [Anthocopa]. **Osmiini.**

Eriades Dalla Torre and Friese, 1895:69, unjustified emendation of *Heriades* Spinola, 1808. **Osmiini.**

Ericrocis Cresson, 1887:131, 134. Type species: *Crocisa ? lata* Cresson, 1878, monobasic. **Ericocidini.**

Eriops Klug, 1807, in Illiger, 1807:197; Klug, 1807b:207, 227. Type species: *Andrena lobata* Panzer, 1799 = *Apis calcarata* Scopoli, 1763, monobasic. Isotypic with *Panurgus* by synonymy. **Panurginae.**

Eryops Latreille, 1811:716, unjustified emendation of *Eriops* Klug, 1807. **Panurginae.**

Erythrandrena Zavortink, 1972:61. Type species: *Megandrena mentzeliae* Zavortink, 1972, by original designation. [Megandrena]. **Andreninae.**

- Erythronomioides* Pesenko, 1983:176. Type species: *Nomioides socotranus* Blüthgen, 1925, by original designation. [Nomioides]. **Nomioidinae**.
- Erythrosmia* Schmiedeknecht, 1885:20. Type species: *Osmia andrenoides* Spinola, 1808, by designation of Cockerell, 1922a:6. [Osmia]. **Osmiini**.
- Ethalonchopria* Michener, 1989:670. Type species: *Apista gaullei* Vachal, 1909, by original designation. [Eulonchopria]. **Colletinae**.
- Euandrena* Hedicke, 1933:213. Type species: *Andrena bicolor* Fabricius, 1775, by original designation. [Andrena]. **Andreninae**.
- Euaspis* Gerstaecker, 1857:460. Type species: *Thynnus abdominalis* Fabricius, 1793, by original designation. Isotypic with *Dilobopeltis* by synonymy. **Anthidiini**.
- Eucara* Friese, 1905b:241. Type species: *Anthophora laticeps* Friese, 1905, by designation of Cockerell, 1933a:465. [Anthophora]. **Eucerini**.
- Eucera* Scopoli, 1770:8. Type species: *Apis longicornis* Linnaeus, 1758, by designation of Latreille, 1810:439. **Eucerini**.
- Euceratina* Hirashima, Moure, and Daly, 1971, in Hirashima, 1971a:369. Type species: *Apis callosa* Fabricius, 1794, by original designation. [Ceratina]. **Ceratinini**.
- Eucerinoda* Michener and Moure, 1957:445. Type species: *Anthophora gayi* Spinola, 1851, by original designation. **Eucerini**.
- Euchalicodoma* Tkalcú, 1969:358. Type species: *Megachile asiatica* Morawitz, 1875, by original designation. [Chalicodoma]. Isotypic with *Allomegachile*. **Megachilini**.
- Eucharis* Dalla Torre, 1896:300. Listed as a junior synonym of *Epicharis* and *Eucharis hirtipes* listed in synonymy on p. 301, and both attributed to Lepeletier [and Serville], 1825 (correctly 1828):794 and 795. Search of these and other pages of that work reveals no use of *Eucharis*, which therefore appears to be an error by Dalla Torre, and not available according to the Code, 3rd ed., Art. 11(c). **Centridini**.
- Eucondylops* Brauns, 1902:377. Type species: *Eucondylops konowi* Brauns, 1902, monobasic. **Allodapini**.
- Eudioxys* Mavromoustakis, 1963c:443. Type species: *Dioxys quadrispinosa* Friese, 1899, by original designation. **Dioxyini**.
- Euflorilegus* Ogloblin, 1955:231. Type species: *Florilegus riparius* Ogloblin, 1955, by original designation. [Florilegus]. **Eucerini**.
- Eufriesea* Cockerell 1908a:41, replacement for *Eumorpha* Friese, 1899. Type species: *Euglossa pulchra* Smith, 1854, autobasic. **Euglossini**.
- Eufriesia* Lutz and Cockerell, 1920:544, unjustified emendation of *Eufriesea* Cockerell, 1908. **Euglossini**.
- Euglages* Gerstaecker, 1869:149. Type species: *Euglages scripta* Gerstaecker, 1869, monobasic. **Ammobatoidini**.
- Euglossa* Latreille, 1802a:436. Type species: *Apis cordata* Linnaeus, 1758, by designation of Blanchard, 1849:pl. 129 (1847). **Euglossini**.
- Euglossella* Moure 1967a:401, replacement for *Cnemidium* Perty, 1833. Type species: *Cnemidium viride* Perty, 1833, autobasic. [Euglossa]. **Euglossini**.
- Euherbstia* Friese, 1925a:8. Type species: *Euherbstia excellens* Friese, 1925, monobasic. **Andreninae**.
- Euhesma* Michener, 1965a:88. Type species: *Euryglossa wahlenbergiae* Michener, 1965, by original designation. [Euryglossa]. **Euryglossinae**.
- Eulaema* Lepeletier, 1841:11. Type species: *Apis dimidiata* Fabricius, 1793 = *Apis meriana* Olivier, 1789, by designation of Taschenberg, 1883:85. **Euglossini**.
- Eulaenia* Spinola, 1851:167, incorrect subsequent spelling of *Eulaema* Lepeletier, 1841. **Euglossini**.
- Eulema* Smith, 1854:380, unjustified emendation of *Eulaema* Lepeletier, 1841. **Euglossini**.
- Eulonchopria* Brèthes, 1909a:247. Type species: *Eulonchopria psaenythoides* Brèthes, 1909, monobasic. **Colletinae**.
- Eumegachilana* Michener, 1965a:191. Type species: *Megachile clotho* Smith, 1861, by original designation. [Chalicodoma]. **Megachilini**.
- Eumegachile* Friese, 1898b:198, no included species; Friese, 1899c:36, included species. Type species: *Megachile bombycinia* Radoszkowski, 1874, by designation of Cockerell, 1930c:209. **Megachilini**.
- Eumelissa* Snelling and Brooks, 1985:21. Type species: *Melissa decorata* Smith, 1854, by original designation. [Mesoplia]. **Ericrocidini**.
- Eumelissodes* LaBerge, 1956:1177. Type species: *Melissodes agilis* Cresson, 1878, by original designation. [Melissodes]. **Eucerini**.
- Eumorpha* Friese 1899b: 126, not Hübner, 1807. Type species: *Euglossa pulchra* Smith, 1854, by designation of Cockerell, 1908a: 41 footnote. See *Eufriesea*. **Euglossini**.
- Eunomia* Cresson, 1875:723, not Hübner, 1818. Type species: *Eunomia marginipennis* Cresson, 1875 = *Nomia kirbii* Smith, 1865, by designation of Cockerell, 1910f:290. See *Dieunomia*. **Nomiinae**.
- Eunomioides* Blüthgen, 1937:3, nomen nudum, = *Ceylalictus*. Type species: *Andrena variegata* Olivier, 1789, by original designation. [Nomioides]. **Nomioidinae**.
- Eupalaearhiza* Meade-Waldo, 1914b:403. Type species: *Eupalaearhiza papuana* Meade-Waldo, 1914, by original designation. **Hylaeinae**.
- Eupavlovskia* Popov, 1955c:330. Type species: *Melecta funeralaria* Smith, 1854, by original designation. **Melectini**.
- Eupetersia* Blüthgen, 1928a:49. Type species: *Eupetersia neavei* Blüthgen, 1928, by original designation. Also published as new by Blüthgen, 1928b:165. **Halictini**.
- Euphilermus* Popov, 1951:906. Type species: *Phileremus oraniensis* Lepeletier, 1841, by original designation. [Ammobates]. **Ammobatini**.
- Euplusia* Moure 1943a:189, replacement for *Plusia* Hoffmannsegg, 1817. Type species: *Plusia superba* Hoffmannsegg, 1817, autobasic. **Euglossini**.

- Euprosopellus* Michener, 1965a:132. Type species: *Prosopis dromedaria* Cockerell, 1910, by original designation. [Hylaeinae]. **Hylaeinae**.
- Euprosopis* Perkins, 1912:106. Type species: *Prosopis husela* Cockerell, 1910, by original designation. **Hylaeinae**.
- Euprosopoides* Michener, 1965a:131. Type species: *Prosopis fulvicornis* Smith, 1853 = *Prosopis ruficeps* Smith, 1853, by original designation. [Hylaeinae]. **Hylaeinae**.
- Euryapis* Sandhouse, 1943:551, replacement for *Orbitella* Ma, 1938. Type species: *Xylocopa confusa* Pérez, 1901, autobasic and original designation. **Xylocopini**.
- Euryglossa* Smith, 1853:17. Type species: *Euryglossa cupreochalybea* Smith, 1853, by designation of Meade-Waldo, 1923:6. **Euryglossinae**.
- Euryglossella* Cockerell, 1910c:263. Type species: *Euryglossella minima* Cockerell, 1910, monobasic. **Euryglossinae**.
- Euryglossidia* Cockerell, 1910b:358. Type species: *Euryglossidia rectangulata* Cockerell, 1910, by original designation. **Colletinae**.
- Euryglossimorpha* Strand, 1910:40. Type species: *Euryglossa nigra* Smith, 1879, monobasic. [Euryglossa]. **Euryglossinae**.
- Euryglossina* Cockerell, 1910a:211. Type species: *Euryglossa semipurpurea* Cockerell, 1910, monobasic. [Euryglossa]. **Euryglossinae**.
- Euryglossula* Michener, 1965a:111. Type species: *Euryglossina chalcosoma* Cockerell, 1913, by original designation. **Euryglossinae**.
- Eurmella* Pasteels, 1965:64. Type species: *Megachile eurymera* Smith, 1854, by original designation. [Megachile]. **Megachilini**.
- Eurypariella* Tkalcú, 1995:111. Type species: *Osmia denudata* Morawitz, 1880, by original designation. **Osmiini**.
- Eurytis* Smith, 1854:279. Type species: *Eurytis funereus* Smith, 1854, monobasic. **Eriocidini**.
- Eusphecogastera* Hirashima, 1992:395, replacement for *Sphecogaster* Hirashima, 1978. Type species: *Palaeorhiza paradisea* Hirashima, 1978, autobasic and by original designation. **Hylaeinae**.
- Eusynhalonia* Ashmead, 1899a:63. Type species: *Melissodes edwardsii* Cresson, 1878, by original designation. **Eucerini**.
- Eutechnia* Holmberg, 1903:400, *lapsus* for *Entechnia* Patton, 1879. **Emphorini**.
- Euthosmia* Sinha, 1958:235. Type species: *Heriades glaucum* Fowler, 1899, by original designation. [Osmia]. **Osmiini**.
- Euthyglossa* Radoszkowski, 1884:21. Type species: *Euthyglossa fasciata* Radoszkowski, 1884 = *Eucera euthyglossa* Dalla Torre, 1896, monobasic. **Osirini**.
- Euricharaea* Thomson, 1872:228. Type species: *Apis argentata* Fabricius, 1793, monobasic. [Megachile]. Isotypic with *Paramegachile*. **Megachilini**.
- Eutrypetes* Popov, 1955a:280. Type species: *Heriades turcomanica* Popov, 1955, by original designation. [Heriades]. **Osmiini**.
- Euxylocopa* Hurd and Moure, 1963:234. Type species: *Xylocopa fraudulenta* Gribodo, 1894 = *Xylocopa erythrina* Gribodo, 1894, by original designation. [Xylocopa]. Isotypic with *Perixylocopa* by synonymy. **Xylocopini**.
- Eversmanniobus* Skorikov, 1938a:145. Type species: *Mucidobombus eversmanniellus* Skorikov, 1922 = *Bombus eversmanni* Friese, 1911 (not *B. modestus eversmanni* Skorikov, 1910) = *Bombus persicus* Radoszkowski, 1881, by designation of Richards, 1968:214. [Agribombus]. **Bombini**.
- Evodia* Panzer, 1806:207. Type species: *Apis calendarum* Panzer, 1802 = *Apis succincta* Linnaeus, 1758, monobasic. Isotypic with *Colletes* by synonymy. **Colletinae**.
- Evylaeus* Robertson, 1902c:247. Type species: *Halictus arcuatus* Robertson, 1893, by original designation. **Halictini**.
- Exaerete* Hoffmannsegg, 1817:53. Type species: *Apis dentata* Linnaeus, 1758, monobasic. Isotypic with *Caliendra* and *Chrysantheda* by synonymy. **Englossini**.
- Exallocentris* Snelling, 1974:35. Type species: *Centris anomala* Snelling, 1966, by original designation. [Centris]. **Centridini**.
- Exanthidium* Pasteels, 1969a:82. Type species: *Anthidium eximium* Giraud, 1863, by original designation. **Anthidiini**.
- Exanthocopa* Tkalcú, 1993a:55. Type species: *Osmia oxypyga* Benoist, 1927, by original designation. [Anthocopa]. **Osmiini**.
- Exocletes* Michener, 1965a:56. Type species: *Leioproctus impatellatus* Michener, 1965, by original designation. [Leioproctus]. **Colletinae**.
- Exilobombus* Skorikov, 1922b:150. Type species: *Mucidobombus exil* [misprinted *exiln*] Skorikov, 1922, monobasic. [Mucidobombus]. **Bombini**.
- Exomalopsis* Spinola, 1853:89. Type species: *Exomalopsis fulvipilosa* Spinola, 1853 = *Exomalopsis europilosa* Spinola, 1853, by designation of Taschenberg, 1883:82. **Exomalopsini**.
- Exoneura* Smith, 1854:232. Type species: *Exoneura bicolor* Smith, 1854, monobasic. **Allodapini**.
- Exoneurella* Michener, 1963:257. Type species: *Exoneura lawsoni* Rayment, 1946, by original designation. **Allodapini**.
- Exoneuriidia* Cockerell, 1911d:232. Type species: *Exoneura libanensis* Friese, 1899, by original designation. [Exoneura]. **Allodapini**.
- Exoneurula* Michener, 1966b:573. Type species: *Exoneurula zavattarii* Michener, 1966 = *Compsomelissa borneri* Alfken, 1924, by original designation. Isotypic with *Compsomelissa* by synonymy. **Allodapini**.
- Exosmia* Tkalcú, 1979:321. Type species: *Osmia difficilis* Morawitz, 1875, by original designation. [Osmia]. **Osmiini**.
- Fahrhalictus* Warncke, 1975b:95. Type species: *Halictus fahringeri* Friese, 1921, by original designation. [Halictus]. **Halictini**.
- Fasciata* Méhelý, 1935:44, 150. Type species: *Prosopis facialis* Pérez, 1895 = *Prosopis trinotata* Pérez, 1895, monobasic. [Prosopis]. **Hylaeinae**.
- Fascista* Popov, 1939:168, incorrect subsequent spelling for *Fasciata* Méhelý, 1935.

- Fernaldaepsithyrus* Frison, 1927:70. Type species: *Psithyrus fernaldae* Franklin, 1911, monobasic. [Psithyrus]. **Bombini.**
- Fertonella* Cockerell, 1920a:257, replacement for *Perezia* Ferton, 1914. Type species: *Perezia maura* Ferton, 1914 = *Megachile leachella* Curtis, 1828, autobasic and original designation. **Megachilini.**
- Fervidobombus* Skorikov, 1922b:123, 153. Type species: *Apis fervida* Fabricius, 1798, by designation of Frison, 1927:69. **Bombini.**
- Festivobombus* Tkalcú, 1972:27. Type species: *Bombus festivus* Smith, 1861, by original designation. [Pyrobombus]. **Bombini.**
- Fidelia* Friese, 1899a:244. Type species: *Fidelia paradoxa* Friese, 1899, monobasic. **Fidiini.**
- Filiglossa* Rayment, 1959a:324. Type species: *Filiglossa filamentosa* Rayment, 1959, by original designation. **Colletinae.**
- Fiorentinia* Dalla Torre, 1896:334, replacement for *Epeicharis* Radoszkowski, 1884, not *Epicharis* Klug. Type species: *Epeicharis mexicanus* Radoszkowski, 1884, autobasic. **Tapinotaspidini.**
- Flavipanurgus* Warncke, 1972:69. Type species: *Panurgus flavus* Friese, 1897, by original designation. [Panurgus]. **Panurginae.**
- Flavodufourea* Ebmer, 1984:373. Type species: *Dufourea flavigornis* Friese, 1913, by original designation. [Dufourea]. **Rophitinae.**
- Flavomeliturgula* Warncke, 1985:229. This name is not valid since no type species or even included species was indicated. From descriptions one can guess that Warncke intended this to be a subgeneric name for *Meliturgula deserta* Warncke. [Meliturgula]. **Panurginae.**
- Florentina* Ashmead, 1899a:67, lapsus for *Fiorentinia* Dalla Torre, 1896. **Tapinotaspidini.**
- Florilegus* Robertson, 1900:53. Type species: *Melissodes condigna* Cresson, 1879, monobasic. **Eucerini.**
- Floriraptor* Moure and Michener, 1955b:268. Type species: *Melissodes atropos* Smith, 1879 = *Tetralonia melectoides* Smith, 1879, by original designation. [Florilegus]. **Eucerini.**
- Foersterapis* Moure, 1964a:441. Type species: *Zikanapis foersteri* Moure and Seabra, 1962, by original designation. [Zikanapis]. **Caupolicaniini.**
- Formicapis* Sladen, 1916a:271. Type species: *Formicapis clypeata* Sladen, 1916 = *Osmia robusta* Nylander, 1848, monobasic. **Osmiini.**
- Foveosmia* Warncke, 1991c:267. Type species: *Heriades foveolatus* Morawitz, 1868, by original designation. [Osmia]. **Osmiini.**
- Fraternobombus* Skorikov, 1922b:156. Type species: *Apathus fraternus* Smith, 1854, by designation of Frison, 1927:63. [Alpigenobombus]. **Bombini.**
- Friesea* Schrottky, 1902a:418, not Dalla Torre, 1895. Type species: *Friesea brasiliensis* Schrottky, 1902 = *Camptopoeum prinii* Holmberg, 1884, monobasic. See *Parafriesea*. **Panurginae.**
- Friesella* Moure, 1946a:441; 1946b:611. Type species: *Melipona schrottkyi* Friese, 1900, by original designation. **Meliponini.**
- Frieseomelitta* Lhering, 1912:5. Type species: *Trigona silvestrii* Friese, 1902, monobasic. **Meliponini.**
- Fumandrena* Warncke, 1974:98, nomen nudum. [Andrena]. **Andreninae.**
- Fumandrena* Warncke, 1975a:57. Type species: *Andrena fumida* Pérez, 1895, by original designation. [Andrena]. **Andreninae.**
- Funebribombus* Skorikov, 1922b:157. Type species: *Bombus funebris* Smith, 1854, monobasic. [Alpigenobombus]. **Bombini.**
- Furcosmia* Schmiedeknecht, 1885:22. Type species: *Apis papaveris* Latreille, 1799, by designation of Cockerell, 1922a:6. [Osmia]. Isotypic with *Anthocopa* and *Phyllotoma*. **Osmiini.**
- Gaesischia* Michener, LaBerge, and Moure, 1955:220. Type species: *Svastra fulgorans* Holmberg, 1903, by original designation. **Eucerini.**
- Gaesischiana* Michener, LaBerge, and Moure, 1955:224. Type species: *Gaesischia exul* Michener, LaBerge, and Moure, 1955, by original designation. [Gaesischia]. **Eucerini.**
- Gaesischiopsis* Michener, LaBerge, and Moure, 1955:221. Type species: *Gaesischia flavoclypeata* Michener, LaBerge, and Moure, 1955, by original designation. [Gaesischia]. **Eucerini.**
- Gaesochira* Moure and Michener, 1955b:283. Type species: *Gaesochira complanata* Moure and Michener, 1955 = *Melissodes obscurior* Dalla Torre, 1896, by original designation. **Eucerini.**
- Gastrohalictus* Ducke, 1902:102. Type species: *Halictus osmiooides* Ducke, 1902, monobasic. [Halictus]. **Haliatinae.**
- Gastropsis* Smith, 1868b:xxxix, replacement for *Oestropsis* Smith, 1868. Type species: *Oestropsis pubescens* Smith, 1868, autobasic. **Stenotritidae.**
- Geandrena* LaBerge, 1964:313. Type species: *Andrena caerulea* Smith, 1879, by original designation. [Andrena]. **Andreninae.**
- Geissandrena* LaBerge and Ribble, 1972:302. Type species: *Andrena trevoris* Cockerell, 1897, by original designation. [Andrena]. **Andreninae.**
- Geniotrigona* Moure, 1961:212. Type species: *Trigona thoracica* Smith, 1857, by original designation. **Meliponini.**
- Genyandrena* LaBerge, 1986:544. Type species: *Andrena mackieae* Cockerell, 1937, by original designation. [Andrena]. **Andreninae.**
- Geoperdita* Cockerell and Porter, 1899:415. Type species: *Perdita chamaesarachae* Cockerell, 1896, monobasic. [Perdita]. **Panurginae.**
- Georgealictus* Packer, 1993:1656. Type species: *Mexalictus polybiooides* Packer, 1993, by original designation. [Mexalictus]. **Haliatini.**
- Geotrigona* Moure, 1943a:146. Type species: *Trigona mombuca* Smith, 1863, by original designation. [Trigona]. **Meliponini.**

- Gephyrohylaeus* Michener, 1965a:138. Type species: *Heterapis sandacanensis* Cockerell, 1919, by original designation. **Hylaeinae**.
- Glossadufourea* Ebmer, 1993:32. Type species: *Dufourea longiglossa* Ebmer, 1993, by original designation. **Rophitinae**.
- Glossalictus* Michener, 1965a:173. Type species: *Halictus etheridgei* Cockerell, 1916, by original designation. [Lasioglossum]. **Halictini**.
- Glossamegilla* Brooks, 1988:512. Type species: *Anthophora mesopyrrha* Cockerell, 1930, by original designation. [Amegilla]. **Anthophorini**.
- Glossodialictus* Pauly, 1984a:704. Type species: *Glossodialictus wittei* Pauly, 1984, by original designation. **Halictini**.
- Glossopasiphæ* Michener, 1989:643. Type species: *Leioproctus plaumannii* Michener, 1989, by original designation. [Leioproctus]. **Colletinae**.
- Glossoperdita* Cockerell, 1916c:43. Type species: *Glossoperdita pelargoides* Cockerell, 1916, monobasic. **Panurginae**.
- Glossosmia* Michener, 1943:84. Type species: *Osmia singularis* Morawitz, 1875, by original designation. [Osmia]. **Osmiini**.
- Glossura* Cockerell, 1917b:144. Type species: *Englossa piliventris* Guérin-Méneville, 1845, by original designation. [Euglossa]. **Euglossini**.
- Glossurella* Dressler, 1982:131. Type species: *Euglossa bursigera* Moure, 1970, by original designation. [Euglossa]. **Euglossini**.
- Glossurocolletes* Michener, 1965a:60. Type species: *Leioproctus bilobatus* Michener, 1965, by original designation. [Leioproctus]. **Colletinae**.
- Glossuropoda* Moure, 1989c:387. Type species: *Euglossa intersecta* Latreille, 1837, by original designation. [Euglossa]. **Euglossini**.
- Glyphandrena* Hedicke, 1933:212. Type species: *Apis carbonaria* Linnaeus, 1767, by original designation. [Andrena]. **Andreninae**.
- Glyptapis* Cockerell, 1909d:314; also described as new by Cockerell, 1909e:13. Type species: *Glyptapis mirabilis* Cockerell, 1909, monobasic and designated by Cockerell, 1909e:14. **Fossil**.
- Glyptobasia* Moure, 1941a:98, replacement for *Glyptobasis* Moure, 1940. Type species: *Augochlora chloera* Moure, 1940, autobasic. [Augochlora]. **Augochlorini**.
- Glyptobasis* Moure, 1940:48, not M'Lachlan, 1871. Type species: *Augochlora chloera* Moure, 1940, by original designation. See *Glyptobasia*. [Augochlora]. **Augochlorini**.
- Glyptochlora* Moure, 1959:188. Type species: *Megalopta ornata* Smith, 1879, by original designation. [Augochloropsis]. **Augochlorini**.
- Glyptocoelioxys* Mitchell, 1973: 92. Type species: *Coelioxys vidua* Smith 1854, by original designation. [Coelioxys]. **Megachilini**.
- Gnathanthidium* Pasteels, 1969a:92. Type species: *Anthidium priognathum* Mavromoustakis, 1935, by original designation. **Anthidiini**.
- Gnathanthidium* Urban, 1994b:337, not Pasteels, 1969. Type species: *Gnathanthidium sakagamii* Urban, 1992, by original designation. See *Michanthidium*. **Anthidiini**.
- Gnathias* Robertson, 1903d:173, 174, 175. Type species: *Nomada bella* Cresson, 1863, by original designation. **Nomadini**.
- Gnathocera* Provancher, 1882:232, not Kirby, 1825. Type species: *Gnathocera cephalica* Provancher, 1882 = *Megachile pugnatus* Say, 1837, monobasic. See *Sayapis*. Isotypic with *Ceratias* by synonymy. **Megachilini**.
- Gnathodon* Robertson, 1903a:168, not Oken, 1816, etc. Type species: *Megachile georgica* Cresson, 1878, monobasic. See *Sarogaster*. **Megachilini**.
- Gnathopasites* Linsley and Michener, 1939:272. Type species: *Phileremus fulviventris* Cresson, 1878, by original designation. Isotypic with *Neopasites*. **Biastini**.
- Gnathoprosopis* Perkins, 1912:104. Type species: *Prosopis xanthopoda* Cockerell, 1910 = *P. euxantha* Cockerell, 1910, by original designation. **Hylaeinae**.
- Gnathoprosopoides* Michener, 1965a:127. Type species: *Prosopis eburniella* Cockerell, 1912 = *Prosopis philoleucus* Cockerell, 1910, by original designation. [Hylaeus]. **Hylaeinae**.
- Gnathosmia* Robertson, 1903a:165. Type species: *Osmia georgica* Cresson, by original designation. **Osmiini**.
- Gnathoxylocopa* Hurd and Moure, 1963:182. Type species: *Xylocopa sicheli* Vachal, 1898, by original designation. [Xylocopa]. **Xylocopini**.
- Gnathylaeus* Bridwell, 1919:126, 133. Type species: *Gnathylaeus williamsi* Bridwell, 1919, by original designation. **Hylaeinae**.
- Gonandrena* Viereck, 1917:390. Type species: *Andrena persimulata* Viereck, 1917, monobasic. [Andrena]. **Andreninae**.
- Gongyloprosopis* Snelling, 1982:16. Type species: *Prosopis cruenta* Vachal, 1910, by original designation. [Hylaeus]. **Hylaeinae**.
- Goniocolletes* Cockerell, 1907c:231. Type species: *Goniocolletes morsus* Cockerell, 1907, by original designation. **Colletinae**.
- Graecandrena* Warncke, 1968:61. Type species: *Andrena gracella* Warncke, 1965, by original designation. [Andrena]. **Andreninae**.
- Grafanthidium* Urban, 1995b:435. Type species: *Grafanthidium amazonense* Urban, 1995, by original designation. **Anthidiini**.
- Grafella* Mitchell, 1980:56. Type species: *Pseudocentron crotalariae* Schwimmer, 1980, by original designation. [Pseudocentron]. **Megachilini**.
- Greeleyella* Cockerell, 1904d:235. Type species: *Greeleyella beardsleyi* Cockerell, 1904, by original designation. **Panurginae**.
- Gressittapis* Hirashima, 1978:65. Type species: *Palaeorhiza miranda* Hirashima, 1978, by original designation. [Palaeorhiza]. **Hylaeinae**.

Gronoceras Cockerell, 1907b:65. Type species: *Gronoceras wellmani* Cockerell, 1907 = *Megachile bombiformis* Gerstaecker, 1857, by original designation. **Megachilini**.

Grosapis Mitchell, 1980:46. Type species: *Megachile cockerelli* Rohwer, 1923, by original designation. [Eumegachile]. **Megachilini**.

Gulanthidium Pasteels, 1969a:101. Type species: *Anthidium anguliventre* Morawitz, 1888, by original designation. [Anthidium]. **Anthidiini**

Gundlachia Cresson, 1865:195, not Pfeiffer, 1850. Type species: *Centris ? cornuta* Cresson, 1865, monobasic. See *Heterocentris*. **Centridini**.

Gymnandrena Hedicke, 1933:212. Type species: *Apis thoracica* Fabricius, 1775, by original designation. [Andrena]. **Andreninae**.

Gymnus Spinola, 1808:9. Type species: *Apis aterrima* Panzer, 1798, not Christ, 1791 = *Apis punctulatissima* Kirby, 1802, monobasic. Isotypic with *Ceraplastes*, *Stelis*, *Trachusa* Jurine, and *Gyrodroma* Klug. **Anthidiini**.

Gyrodroma Klug, 1807, in Illiger, 1807:198; Klug, 1807b:225. Type species: *Apis aterrima* Panzer, 1798, not Christ, 1791 = *Apis punctulatissima* Kirby, 1802, designated by Sandhouse, 1943:555, who incorrectly considered *Gyrodroma* as monobasic; two species are listed by Klug in Illiger, 1807, which has page priority over Klug, 1807b. Isotypic with *Stelis*, *Trachusa* Jurine, and *Gymnus*. **Anthidiini**.

Gyrodroma Thomson, 1872:259, not Klug, 1807. Type species: *Heriades nigricornis* Nylander, 1848 = *Heriades rapunculi* Lepeletier, 1841, by designation of Cockerell, 1925b:205. See *Gyrodromella*. **Osmiini**.

Gyrodromella Michener, new name, replacement for *Gyrodroma* Thomson, 1872. Type species: *Heriades nigricornis* Nylander, 1848 = *Heriades rapunculi* Lepeletier, 1841, autobasic and present designation. *Gyrodromella* is considered a subgenus of *Chelostoma*. [Chelostoma]. **Osmiini**.

Habralictellus Moure and Hurd, 1982:46. Type species: *Halictus auratus* Ashmead, 1900, by original designation. **Halictini**.

Habralictus Moure, 1941a:59. Type species: *Habralictus flavopictus* Moure, 1941, by original designation. **Halictini**.

Habromelissa Hirashima and LaBerge, 1964, in Hirashima, 1964:71. Type species: *Andrena omogensis* Hirashima, 1953, by original designation. [Andrena]. **Andreninae**.

Habrophora Smith, 1854:318, not Erichson, 1846. Type species: *Habrophora ezonata* Smith, 1854 = *Tetralonia tarsata* Spinola, 1838, inverted autobasic, because of type designation for replacement name, *Habropoda*, by Patton, 1879a:477. **Anthophorini**.

Habrophorula Lieftinck, 1974:217. Type species: *Habropoda nubilipennis* Cockerell, 1930, by original designation. **Anthophorini**.

Habropoda Smith, 1854:320, replacement for *Habrophora* Smith, 1854. Type species: *Habrophora ezonata* Smith, 1854 = *Tetralonia tarsata* Spinola, 1838, by designation of Patton, 1879a:477. **Anthophorini**. The subsequent designation of "H.

zonata" by Taschenberg, 1883:79, is probably an error for *Habrophora ezonata* Smith, 1854.

Hackeriapis Cockerell, 1922b:267. Type species: *Megachile rhodura* Cockerell, 1906, by original designation. [Megachile]. **Megachilini**.

Hadrorrhiza Hirashima, 1980:108. Type species: *Prosopis imperialis* Smith, 1863, by original designation. [Palaeorhiza]. **Hylaeinae**.

Haetosmia Popov, 1952:104. Type species: *Osmia latipes* Morawitz, 1875 = *Osmia brachyura* Morawitz, 1875, monobasic. [Anthocopa]. **Osmiini**.

Halictanthrena Ducke, 1907:364. Type species: *Halictantherea malpighiacearum* Ducke, 1907, monobasic. **Colletinae**.

Halictillus Moure, 1947a:7. Type species: *Chloralictus loureiroi* Moure, 1941, by original designation. **Augochlorini**.

Halictoides Nylander, 1848:195. Type species: *Halictoides dentiventris* Nylander, 1848, by designation of Cockerell and Porter, 1899:420. **Rophitinae**.

Halictomorpha Schrottky, 1911:81. Type species: *Halictomorpha phaedra* Schrottky, 1911, by original designation. **Halictini**.

Halictionomia Pauly, 1980:123. Type species: *Halictus decenniaculatus* Friese, 1900, by original designation. [Nomia]. **Nomiinae**.

Halictus Latreille, 1804:182. Type species: *Apis quadricincta* Fabricius, 1776, by designation of Richards, 1935:170. *Apis rubicunda* Christ, 1791, designated by Curtis, 1833:pl. 448a, was not an originally included species. A discussion of type designations is in Michener (1978a). Omitted from that discussion was Westwood's (1840a:84) and Cockerell's (1931f:529) designation of *Apis sexcincta* Fabricius, 1775, as the type species of *Halictus*. As noted in that discussion, *A. sexcincta* was not an originally included species. Blanchard, 1849:pl. 125 (1847), designated "*Halictus flavipes* Panz." as the type species of the genus. He could have meant *Apis flavipes* Panzer, 1798, a nomen dubium according to Ebmer (1988). Blanchard, however, was careless about the authors' names placed after species names in the explanations of plates, and probably he actually meant to cite the well-known *Apis flavipes* Fabricius, 1787 (= *Apis tumulorum* Linnaeus, 1758), a species of the subgenus *Seladonia*, as the type species of *Halictus*. Fortunately, the name *Halictus*, with *Apis quadricincta* Fabricius, 1776, as the type species, is on the Official List of Generic Names in Zoology (Commission Opinion 1713, 1993). **Halictini**.

Halterapis Michener, 1969: 289. Type species: *Allodape nigrinervis* Cameron, 1905, by original designation. **Allodapini**.

Hamatothrix Urban, 1989:121. Type species: *Hamatothrix silvai* Urban, 1989, by original designation. **Eucerini**.

Haplocoelioxys Mitchell, 1973:85. Type species: *Coelioxys mexicana* Cresson, 1878, by original designation. [Coelioxys]. **Megachilini**.

Haplomalita Cockerell, 1934a:446. Type species: *Rhinochaetula ogilviei* Cockerell, 1932, by original designation. **Dasypodinae**.

Haplosamba Michener, 1981:66. Type species: *Haplomelitta tridentata* Michener, 1981, by original designation. [Haplomelitta]. **Dasypodinae**.

Hauffapis Armbruster, 1938:37. Type species: *Hauffapis scheuthlei* Armbruster, 1938 = *Apis armbrusteri* Zeuner, 1931, by designation of Zeuner and Manning, 1976:243. *Hauffapis* is not a valid name because no type species was designated by Armbruster; original type designation is required for genus-group names proposed after 1930 [Code, 3rd ed., Art. 13(c)]. The subsequent type designation by Zeuner and Manning was in the synonymy of *Apis* and thus does not validate the name as *Hauffapis* Zeuner and Manning [Code, 3rd ed., Art. 11(c)]. **Fossil. Apini**.

Helicosmia Thomson, 1872:233, no included species; Schmiedeknecht, 1885:22, included species. Type species: *Apis aurulenta* Panzer, 1799, by designation of Michener, 1941:163. [Osmia]. **Osmiini**.

Heliomelissodes LaBerge, 1956:1172. Type species: *Melissodes desponsa* Smith, 1854, by original designation. [Melissodes]. **Eucerini**.

Heliophila Klug, 1807, in Illiger, 1807:197; Klug, 1807b:227. Type species: *Apis bimaculata* Panzer, 1798, monobasic. *Heliophila* is attributed in the literature to Klug. It was published in two consecutive articles in the same journal and thus simultaneously. The first article was by Illiger, who attributed the name to Klug; the second was by Klug. Dalla Torre (1896) listed both references under the species *bimaculata* but attributed the genus-group name to Klug, and may therefore be regarded as the first reviser, who decided the authorship of *Heliophila*. **Anthophorini**.

Hemicoelioxys Pasteels, 1968b:133. Type species: *Coelioxys gracilis* Pasteels, 1968 (not Schenck, 1868) = *Hemicoelioxys gracillima* Pasteels, 1977, by original designation. [Coelioxys]. **Megachilini**.

Hemicotelles Toro and Cabezas, 1977:46. Type species: *Lonchopria ruizii* Herbst, 1923, by original designation. **Colletinae**.

Hemidiellum Pasteels, 1972:112. Type species: *Eoanthidium semicarinatum* Pasteels, 1972, monobasic. [Eoanthidium]. **Anthidiini**.

Hemieucera Sitdikov and Pesenko, 1988:88. Type species: *Eucera paraclypeata* Sitdikov, 1988, by original designation. [Eucera]. **Eucerini**.

Hemihalictus Cockerell, 1897a:288. Type species: *Panurgus lustrans* Cockerell, 1897, by original designation. **Halictini**.

Heminomada Cockerell, 1902, in Cockerell and Atkins, 1902:42, footnote. Type species: *Nomada obliteratea* Cresson, 1863, by original designation. [Nomada]. **Nomadini**.

Hemiosmia Tkalcú, 1975a:34. Type species: *Osmia argyropyga* Pérez, 1879, by original designation. [Osmia]. **Osmiini**.

Hemirhiza Michener, 1965a:147. Type species: *Palaeorhiza melliceps* Cockerell, 1918, by original designation. **Hylaeinae**.

Hemisia Klug, 1807, in Illiger, 1807:198, nomen nudum. **Centridini**.

Hemisia Klug, 1807b:213, 227. Type species: *Apis haemorrhoidalis* Fabricius, 1775, by designation of Cockerell, 1906d:105. Isotypic with *Centris*. **Centridini**.

Hemisiella Moure, 1945c:407. Type species: *Apis lanipes* Fabricius, 1775, by original designation. **Centridini**.

Henicohesma Exley, 1968b:199. Type species: *Brachyhesma macdonaldensis* Exley, 1968, by original designation. [Brachyhesma]. **Euryglossinae**.

Herstiella Friese, 1916:168, not Stimpson, 1871. Type species: *Herstiella chilensis* Friese, 1916, monobasic. See *Kelita*. **Brachynomadini**.

Heriades Spinola, 1808:7. Type species: *Apis truncorum* Linnaeus, 1758, designated by Latreille, 1810:439. A subsequent designation was *Heriades rapunculi* Lepeletier, 1841, by Blanchard, 1849:pl. 126 (1846). Taschenberg, 1883:62, listed two species names without indicating that they are synonyms and therefore failed to designate a type species. Isotypic with *Trypetes*. **Osmiini**.

Heriadopsis Cockerell, 1931b:338. Type species: *Heriadopsis striatulus* Cockerell, 1931, by original designation. **Megachilini**.

Hesperandrena Timberlake, 1949, in Lanham, 1949:208. Type species: *Andrena escondida* Cockerell, 1938, by original designation. [Andrena]. **Andreninae**.

Hesperapis Cockerell, 1898a:147. Type species: *Hesperapis eleganula* Cockerell, 1898, monobasic. **Dasypodinae**.

Hesperocolletes Michener, 1965a:75. Type species: *Hesperocolletes douglasi* Michener, 1965, by original designation. **Colletinae**.

Hesperonomada Linsley, 1939b:5. Type species: *Hesperonomada melanantha* Linsley, 1939, by original designation. **Brachynomadini**.

Hesperoperdita Timberlake, 1954:374. Type species: *Perdita ruficauda* Cockerell, 1916, by original designation. [Perdita]. **Panurginae**.

Heteranthidium Cockerell, 1904b:292. Type species: *Anthidium dorsale* Lepeletier, 1841, by original designation. [Anthidium]. **Anthidiini**.

Heterapis Cockerell, 1911a:140, not Linston, 1889. Type species: *Heterapis delicata* Cockerell, 1911, by original designation. See *Heterapoides*. **Hylaeinae**.

Heterapoides Sandhouse, 1943:557, replacement for *Heterapis* Cockerell, 1911. Type species: *Heterapis delicata* Cockerell, 1911, autobasic. **Hylaeinae**.

Hetereucera Tkalcú, 1978:167. Type species: *Eucera hispana* Lepeletier, 1841, by original designation. [Eucera]. **Eucerini**.

Heterocentrism Cockerell, 1899a:14, replacement for *Gundlachia* Cresson, 1865. Type species: *Centris ? cornuta* Cresson, 1865 = *Centris diffinis* Smith, 1854, autobasic. Isotypic with *Rhodocentrism* by synonymy. **Centridini**.

Heterocolletes Rayment, 1935:184. Type species: *Paracolletes capillatus* Rayment, 1935, by original designation. [Paracolletes] **Colletinae**.

- Heteroediscelis* Toro and Moldenke, 1979:112. Type species: *Chilicola mantagua* Toro and Moldenke, 1979, by original designation (misspelled *Heteroesdiscelis* in heading but correct elsewhere). **Xeromelissinae**.
- Heterohesma* Michener, 1965a:97. Type species: *Stilpnosoma clypeata* Rayment, 1954, by original designation. **Euryglossinae**.
- Heteromegachile* Rebmann, 1970:41. Type species: *Chalicodoma lefebvrei* Lepeletier, 1841, by original designation. [Megachile]. Isotypic with *Allochalicodoma*. **Megachilini**.
- Heteroperdita* Timberlake, 1954:365. Type species: *Perdita rhodogastra* Timberlake, 1954, by original designation. [Perdita]. **Panurginae**.
- Heterorhiza* Cockerell, 1929b:316. Type species: *Palaeorhiza melanura* Cockerell, 1910, by original designation. [Palaeorhiza]. **Hylaeinae**.
- Heterosarus* Robertson, 1918a:91. Type species: *Calliopsis parvus* Robertson, 1892, by original designation. **Panurginae**.
- Heterosmia* Tkalcú, 1993a:56, nomen nudum. [Osmia]. **Osmiini**.
- Heterostelis* Timberlake, 1941:125. Type species: *Stelis anthidioides* Timberlake, 1941, by original designation. [Stelis]. **Anthidiini**.
- Heterotrigona* Schwarz, 1939a:96. Type species: *Trigona itama* Cockerell, 1918, by original designation. [Trigona]. **Meliponini**.
- Hexantheda* Ogleblin, 1948:172. Type species: *Hexantheda missionica* Ogleblin, 1948, by original designation. **Colletinae**.
- Hexaperdita* Timberlake, 1954:416. Type species: *Perdita ignota* Cockerell, 1896, by original designation. [Perdita]. **Panurginae**.
- Hexataenites* Pesenko, 1984:348. Type species: *Apis sexcincta* Fabricius, 1775, by original designation. [Halictus]. **Halictini**.
- Hexepeolus* Linsley and Michener, 1937:77, 81. Type species: *Hexepeolus mojavensis* Linsley and Michener, 1937 = *Hexepeolus rhodogyne* Linsley and Michener, 1937, by original designation. **Hexepeolini**.
- Hexosmia* Michener, 1943:74. Type species: *Osmia copelandica* Cockerell, 1908, by original designation. [Anthocopa]. **Osmiini**.
- Hofferia* Tkalcú, 1984a:10. Type species: *Chelostoma schmiedeknechti* Schletterer, 1889, by original designation. **Osmiini**.
- Holandrena* Pérez, 1890:176. Type species: *Melitta labialis* Kirby, 1802, by designation of Hedicke, 1933:214. [Andrena]. **Andreninae**.
- Holcomegachile* Moure, 1953c:119. Type species: *Megachile giraffa* Schrottky, 1913, by original designation. [Megachile]. **Megachilini**.
- Holcopasites* Ashmead, 1899a:82, no species. Crawford (1915) included species. Type species: *Phileremus illinoiensis* Robertson, 1891, by designation of Crawford, 1915:123. **Ammobatoidini**.
- Holmbergeria* Jörgensen, 1912:100. Type species: *Holmbergeria cristariae* Jörgensen, 1912, monobasic. **Colletinae**.
- Holmbergiapis* Cockerell, 1918b:36, replacement for *Scirteca* Holmberg, 1903. Type species: *Scirteca antarctica* Holmberg, 1903, autobasic. See *Alloscirteca*. **Eucerini**.
- Holopesma* Michener, 1965a:102. Type species: *Stilpnosoma semisericea* Cockerell, 1905 = *Sericogaster fasciatus* Westwood, 1835, by original designation. Isotypic with *Sericogaster* by synonymy. **Euryglossinae**.
- Holonomada* Robertson, 1903d:174, 175, 176. Type species: *Nomada superba* Cresson, 1863, by original designation. **Nomadini**.
- Homachthes* Dalla Torre, 1896:499, unjustified emendation of *Omachthes* Gerstaecker, 1869. **Ammobatini**.
- Homalictus* Cockerell, 1919b:13. Type species: *Halictus taclobanensis* Cockerell, 1915, by original designation. [Halictus]. **Halictini**.
- Homotrigona* Moure, 1961:200. Type species: *Trigona fimbriata* Smith, 1857, by original designation. **Meliponini**.
- Honanthidium* Pasteels, 1969a:88. Type species: *Anthidium honestum* Cockerell, 1936, by original designation. **Anthidiini**.
- Hoplandrena* Pérez, 1890:170. Type species: *Melitta trimmerana* Kirby, 1802, by designation of Hedicke, 1933:214. [Andrena]. **Andreninae**.
- Hoplepicharis* Moure, 1945b:300. Type species: *Epicharis fasciata* Lepeletier and Serville, 1825, by original designation. **Centridini**.
- Hopliphora* Lepeletier, 1841:458. Type species: *Mesocheira velutina* Lepeletier and Serville, 1825, monobasic. Isotypic with *Oxy nedys* by synonymy. **Ericrocidini**.
- Hoplitella* Cockerell, 1910d:169, not Levinse, 1909. Type species: *Hoplitella pentamera* Cockerell, 1910 = *Ashmeadiella howardi* Cockerell, 1910, monobasic. See *Hoplitina*. **Osmiini**.
- Hoplitina* Cockerell, 1913:34, replacement for *Hoplitella* Cockerell, 1910. Type species: *Hoplitella pentamera* Cockerell, 1910 = *Ashmeadiella howardi* Cockerell, 1910, autobasic and by original designation. **Osmiini**.
- Hoplitis* Klug, 1807b:225. Type species: *Apis adunca* Panzer, 1798, monobasic. Isotypic with *Ctenosmia*. **Osmiini**.
- Hoplitocopa* Lieftinck, 1955:27. Type species: *Xylocopa assimilis* Ritsema, 1880, by original designation. [Xylocopa]. **Xylocopini**.
- Hoplocolletes* Michener, 1965a:42. Type species: *Dasycolletes ventralis* Friese, 1924, by original designation. [Leioproctus]. **Colletinae**.
- Hoplonomia* Ashmead, 1904b:4. Type species: *Hoplonomia quadrifasciata* Ashmead, 1904, by designation of Cockerell, 1910f:289. **Nomiinae**.
- Hoplopasites* Ashmead, 1898:284. Type species: *Phileremus productus* Cresson, 1879, by original designation. **Dioxyini**.
- Hoploprosopis* Hedicke, 1926:415. Type species: *Prosopis quadricornis* Hedicke, 1926, by original designation. [Prosopis]. **Hylaeinae**.

- Hoplosmia* Thomson, 1872:233. no included species: Schmiedeknecht, 1884:23, included species. Type species: *Apis spinulosa* Kirby, 1802, by designation of Michener, 1941:161. [Osmia]. **Osmiini**.
- Hoplostelis* Dominique, 1898:60. no valid included species; Griswold and Michener, 1988:36, included species. Type species: *Stelis abnormis* Friese, 1925 = *Anthidium bivittatum* Cresson, 1878, by designation of Griswold and Michener, 1988:36. Isotypic with *Odontostelis*. **Anthidiini**.
- Hoploxylocoxa* Hurd and Moure, 1963:260. Type species: *Xylocopa acutipennis* Smith, 1854, by original designation. [Xylocopa]. **Xylocopini**.
- Hortibombus* Skorikov, 1938a:146, unjustified emendation of *Hortobombus* Vogt, 1911. **Bombini**.
- Hortobombus* Vogt, 1911:56. Type species: *Apis hortorum* Linnaeus, 1761, by designation of Sandhouse, 1943:559. [Bombus]. **Bombini**.
- Hylaeana* Michener, 1954:28. Type species: *Hylacus panamensis* Michener, 1954, by original designation. [Hylaeus]. **Hylaeinae**.
- Hylaeoides* Dalla Torre, 1896:51, unjustified emendation of *Hyleoides* Smith, 1853. **Hylaeinae**.
- Hylaeopsis* Michener, 1954:27. Type species: *Prosopis mexicana* Cresson, 1869, by original designation. [Hylaeus]. **Hylaeinae**.
- Hylaeorrhiza* Michener, 1965a:141. Type species: *Prosopis nubilosa* Smith, 1853, by original designation. **Hylaeinae**.
- Hylaeosoma* Ashmead, 1898:284. Type species: *Hylaeosoma longiceps* Ashmead, 1898, by original designation. **Xeromelissinae**.
- Hylaeteron* Michener, 1965a:126. Type species: *Prosopis pulchriceps* Cockerell, 1915 = *Euryglossa semirufa* Cockerell, 1914, by original designation. [Hylaeus]. **Hylaeinae**.
- Hylaeus* Fabricius, 1793:302. Type species: *Prosopis annulata* Fabricius, 1804 = *Apis annulata* Linnaeus, 1758, by designation of Latreille, 1810:438. *Sphex signata* Panzer, 1798 = *Mellinus bipunctatus* Fabricius, 1798, designated by Blanchard, 1849:pl. 125 (1847) was not originally included. **Hylaeinae**. *Apis quadricincta* Fabricius, 1776, was designated as the type species of *Hylaeus* by Warncke, 1970:747. Warncke's arguments do not justify this designation, which would transfer the name *Hylaeus* from the Colletidae to the Halictidae. Isotypic with *Halictus*. **Halictinae**.
- Hyleoides* Smith, 1853:32. Type species: *Vespa concinna* Fabricius, 1775, by designation of Taschenberg, 1883:45. **Hylaeinae**.
- Hyloeoosoma* Ashmead, 1899b:376, error for *Hylaeosoma* Ashmead, 1898. **Xeromelissinae**.
- Hyanthidioides* Moure, 1947a:35. Type species: *Anthidium flavofasciatum* Schrottky, 1902, by original designation. **Anthidiini**.
- Hyanthidioides* Michener, 1948a:22; Moure and Urban, 1975:837; Urban, 1993:28, error for *Hyanthidioides* Moure, 1947. **Anthidiini**.
- Hyanthidium* Cockerell, 1904b:292. Type species: *Anthidium flavomarginatum* Smith, 1879, by original designation. **Anthidiini**.
- Hyperandrena* Pittioni, 1948:58. Type species: *Apis bicolorata* Rossi, 1790, by original designation. [Andrena]. **Andreninae**.
- Hyphesma* Michener, 1965a:103. Type species: *Pachyprosopis atromicans* Cockerell, 1913, by original designation. **Euryglossinae**.
- Hyporobombus* Quilis, 1927:97. Type species: *Apis hypnorum* Linnaeus, 1758, monobasic. [Bombus]. Isotypic with *Pyrobombus*, *Anolontobombus*, and *Uncobombus*. **Bombini**.
- Hypochrotaenia* Holmberg, 1886b:234, 273. Type species: *Hypochrotaenia parvula* Holmberg, 1886, monobasic. **Nomadini**.
- Hypomacroteria* Cockerell and Porter, 1899:418. Type species: *Hypomacroteria callops* Cockerell and Porter, 1899, by original designation. **Panurginae**.
- Hypotrigona* Cockerell, 1934b:47. Type species: *Trigona gribodoi* Magretti, 1884, by original designation. [Trigona]. **Meliponini**.
- Icteranthidium* Michener, 1948a:25. Type species: *Anthidium limbiferum* Morawitz, 1875, by original designation. **Anthidiini**.
- Idiomelissodes* LaBerge, 1956:1027. Type species: *Melissodes duplocincta* Cockerell, 1905, by original designation. [Melissodes]. **Eucerini**.
- Idioprosopis* Meade-Waldo, 1914a:451. Type species: *Idioprosopis chalcidiformis* Meade-Waldo, 1914, by original designation. **Xeromelissinae**.
- Immanthidium* Pasteels, 1969a:89. Type species: *Anthidium immaculatum* Smith, 1854, by original designation. **Anthidiini**.
- Imperfecta* Méhely, 1935:48, 154. Invalid because no type species was designated. [Prosopis]. Sandhouse's (1943:560) view that Popov (1939) designated a type species and thus validated the name is incorrect. **Hylaeinae**.
- Indanthidium* Michener and Griswold, 1994a:315. Type species: *Indanthidium crenulaticauda* Michener and Griswold, 1994, by original designation. **Anthidiini**.
- Indohalictus* Blüthgen, 1931:291. Type species: *Halictus buccinus* Vachal, 1894, by original designation. [Halictus]. **Halictini**.
- Inhalictus* Warncke, 1975b:96. Type species: *Hylaeus interrups* Panzer, 1798, by original designation. [Halictus]. **Halictini**.
- Inquilina* Michener, 1961:179. Type species: *Exoneura excavata* Cockerell, 1922, by original designation. **Allodapini**.
- Iomelissa* Robertson, 1900:50. Type species: *Andrena violae* Robertson, 1891, monobasic. **Andreninae**.
- Ioxylöcopa* Hurd and Moure, 1963:116. Type species: *Xylocopa chrysopoda* Schrottky, 1902, by original designation. [Xylocopa]. **Xylocopini**.

Ischnocera Shuckard, 1840:166, no included species; Smith, 1854:284 included *Ischnocera* as a synonym of *Ctenioschelus*, with the single species *latreillii* Lepeletier. Type species: *Melissoda latreillii* Lepeletier, 1841 = *Acanthopus goryi* Romand, 1840, first included species. *Ctenioschelus* Romand was published in November, 1840. *Ischnocera* Shuckard probably appeared in December, 1840, for in the preface of the volume in which this name was proposed is a note dated "Nov. 1840," and a copy of the volume in the Natural History Museum, London, bears the handwritten notation "Dec. 1840" (information thanks to Julie Harvey, Librarian). *Ctenioschelus* therefore appears to have priority, as well as universal usage since 1840. Isotypic with *Ctenioscelus* by synonymy. **Eriocidini.**

Isepeolus Cockerell, 1907b:64. Type species: *Isepeolus albopictus* Cockerell, 1907 = *Epeolus viperinus* Holmberg, 1886, monobasic. Isotypic with *Palinepeolus* and *Calospiloma* by synonymy. **Isepeolini.**

Isomalopsis Michener and Moure, 1957:434. Type species: *Tetralonia niveata* Friese, 1908, by original designation. **Exomalopsini.**

Isosmia Michener and Sokal, 1957:159. Type species: *Anthocopa rubrella* Michener, 1949, by original designation. [Anthocopa]. **Osmiini.**

Jaxartinula Popov, 1963:865. Type species: *Jaxartinula malyshevi* Popov, 1963, by original designation. **Osmiini.**

Kallobombus Dalla Torre, 1880:40. Type species: *Apis soroeensis* Fabricius, 1776, by designation of Sandhouse, 1943:561. [Bombus]. Isotypic with *Soroeensibombus*. **Bombini.**

Katamegachile Rebmann, 1970:43. Type species: *Megachile manicata* Giraud, 1861, by original designation. [Megachile]. **Megaehilini.**

Kelita Sandhouse, 1943:561, replacement for *Herbstiella* Friese, 1916. Type species: *Herbstiella chilensis* Friese, 1916, autobasic. **Brachynomadini.**

Kelneriapis Sakagami, 1978(June):232. Type species: *Trigona eocenica* Kelner-Pillault, 1970, monobasic. Isotypic with *Kelnermelia*. **Fossil. Meliponini.**

Kelnermelia Moure and Camargo, 1978(Nov. 17): 565. Type species: *Trigona eocenica* Kelner-Pillault, 1970, by original designation. Isotypic with *Kelneriapis*. **Fossil. Meliponini.**

Kirbya Lepeletier, 1841:145, not Robineau-Desvoidy, 1830. Type species: *Melitta tricincta* Kirby, 1802, by designation of Sandhouse, 1943:561. Not replaced because synonym of *Melitta*. Isotypic with *Melitta*. **Melittinae.**

Koptobaster Popov, 1939:168, error for *Koptogaster* Alfken, 1912. [Prosopis]. **Hylaeinae.**

Koptogaster Alfken, 1912:23. Type species: *Prosopis bifasciata* Jurine, 1807, by designation of Meade-Waldo, 1923:16. [Prosopis]. **Hylaeinae.**

Koptorthosoma Dalla Torre, 1896:202, unjustified emendation of *Koptortosoma* Gribodo, 1894. **Xylocopini.**

Koptortosoma Gribodo, 1894:271. Type species: *Koptortosoma gabonica* Gribodo, 1894, by designation of Sandhouse,

1943:561. Vitzthum (1930) implied that *Apis aestuans* Linnaeus, 1758, should be the type species of *Koptorthosoma*, but his wording does not unambiguously make a type designation. Both *gabonica* and *aestuans* were originally included species and both fall in the subgenus *Koptortosoma* as now understood. **Xylocopini.**

Kozlovibombus Skorikov, 1922b:152. Type species: *Bombus kozlovi* Skorikov, 1909 = *Bombus keriensis* Morawitz, 1886, by designation of Sandhouse, 1943:561. **Bombini.**

Kozlowibombus Bischoff, 1936:10, unjustified emendation of *Kozlovibombus* Skorikov, 1922. [Bombus]. **Bombini.**

Kumobia Popov, 1962:300. Type species: *Osmia tenuicornis* Morawitz, 1875, by original designation. **Osmiini.**

Kylopasiphiae Michener, 1989:641. Type species: *Leioproctus pruinosus* Michener, 1989, by original designation. [Leioproctus]. **Colletinae.**

Laboriopsithyrus Frison, 1927:69. Type species: *Bombus laboriosus* Fabricius, 1804, by original designation. The specific name was misapplied by Frison and others, who considered it to be a species of *Psithyrus*. See *Citrinopsithyrus* and Williams (1991). [Psithyrus]. **Anthophorini.**

Labrohalictus Pauly, 1981:719. Type species: *Lasioglossum saegeri* Pauly, 1981, monobasic. [Lasioglossum]. **Haliectini.**

Laceohylaens Houston, 1981:88. Type species: *Prosopis cyanophila* Cockerell, 1910, by original designation. [Hylaeus]. **Hylaeinae.**

Laesibombus Skorikov, 1938a:145, unjustified emendation of *Laesobombus* Krüger, 1920 or Skorikov, 1922. **Bombini.**

Laesobombus Krüger, 1920:350. Type species: *Bombus laesus* Morawitz, 1875, monobasic. [Agrobombus]. Isotypic with *Laesobombus* Skorikov. **Bombini.**

Laesobombus Skorikov, 1922b:150. Type species: *Bombus laesus* Morawitz, 1875, monobasic. [Agrobombus]. Junior synonym and homonym of *Laesobombus* Krüger. Isotypic with *Laesobombus* Krüger. **Bombini.**

Lagobata Smith, 1861:151. Type species: *Lagobata diligens* Smith, 1861 = *Ancyloscelis ornata* Spinola, 1853, monobasic. **Tetrapediini.**

Lagripode Vachal, 1909b:7. Latinization of *Lagripode* Lepeletier and Serville, 1828; these authors gave a few characters but included no species. **Unrecognizable.**

Lagripode Lepeletier and Serville, 1828:795. French vernacular; see *Lagripoda* Vachal, 1909. **Unrecognizable.**

Lambdopsis Mélély, 1935:65, 171. Invalid because no type species was designated. [Prosopis]. **Hylaeinae.**

Lambdopsis Popov, 1939:169. Type species: *Melitta annularis* Kirby, 1802, by original designation. [Prosopis]. **Hylaeinae.**

Laminomada Rodeck, 1947:266. Type species: *Nomada hesperia* Cockerell, 1903, by original designation. [Nomada]. **Nomadini.**

Lampralictus Pesenko, 1984:348. Type species: *Halictus modernus* Morawitz, 1876, by original designation. [Halictus]. **Halictini.**

Lamproapis Cameron, 1902a:419. Type species: *Lamproapis maculipennis* Cameron, 1902, monobasic. **Nomadini**.

Lamprocolletes Smith, 1853:10. Type species: *Andrena chalybeata* Erichson, 1851, by designation of Cockerell, 1905a:345. Isotypic with *Nodocolletes* by synonymy. **Colletinae**.

Lanthanella Michener and Moure, 1957:417. Type species: *Lanthanomelissa completa* Michener and Moure, 1957, by original designation. [Lanthanomelissa]. **Tapinotaspidini**.

Lanthanomelissa Holmberg, 1903:418. Type species: *Lanthanomelissa discrepans* Holmberg, 1903, monobasic. **Tapinotaspidini**.

Lapidariobombus Skorikov, 1938a:145, unjustified emendation of *Lapidariobombus* Vogt, 1911. **Bombini**.

Lapidariobombus Vogt, 1911:58. Type species: *Apis lapidaria* Linnaeus, 1758, by designation of Sandhouse, 1943:562. [Bombus]. Isotypic with *Melanobombus*. **Bombini**.

Lapponicobombus Quilis, 1927:19, 22, 63. Type species: *Apis lapponica* Fabricius, 1793, by designation of Milliron, 1961:58. [Bombus]. **Bombini**.

Larandrena LaBerge, 1964:304. Type species: *Andrena miserabilis* Cresson, 1872, by original designation. [Andrena]. **Andreninae**.

Largella Pasteels, 1965:534. Type species: *Megachile semivestita* Smith, 1853, by original designation. [Chalicodoma]. **Megachilini**.

Larinostelis Michener and Griswold, 1994a:317. Type species: *Larinostelis scapulata* Michener and Griswold, 1994, by original designation. **Anthidiini**.

Lasanthidium Romankova, 1988:26. Type species: *Stelis malaisei* Popov, 1941, by original designation. **Anthidiini**.

Lasioglossum Curtis, 1833:448. Type species: *Lasioglossum tricingulum* Curtis, 1833 = *Melitta xanthopus* Kirby, 1802, by original designation. **Halictini**.

Lasius Jurine, 1801:164. Type species: *Apis quadrimaculata* Panzer, 1798, monobasic. Suppressed by Commission Opinion 135 (1939), Direction 4. Isotypic with *Dasmegilla*. **Anthophorini**.

Lasius Panzer, 1804b:tab. 16. Type species: *Lasius salviae* Panzer, 1804 = *Anthophora crinipes* Smith, 1854, monobasic. Suppressed by Commission Opinion 151 (1944), Direction 4. According to Opinion 151, the correct date for *Lasius* Panzer is [1801–1802]; see Literature Cited. **Anthophorini**.

Legnanthidium Griswold and Michener, 1988:27. Type species: *Anthidium ridingsii* Cresson, 1878, by original designation. [Trachusa]. **Anthidiini**.

Leimelissa Osychnyuk, 1984b:20. Type species: *Andrena bairucumensis* Morawitz, 1876, by original designation. [Andrena]. **Andreninae**.

Leiopodus Smith, 1854:252. Type species: *Leiopodus lacertinus* Smith, 1854, monobasic. **Protepeolini**.

Leioproctus Smith, 1853:8. Type species: *Leioproctus imitatus* Smith, 1853, by designation of Cockerell, 1905a:348. **Colletinae**.

Lepidandrena Hedicke, 1933:215. Type species: *Andrena curvungula* Thomson, 1870, by original designation. [Andrena]. **Andreninae**.

Lepidorhopalomelissa Wu, 1985:58. Type species: *Nomia burmica* Cockerell, 1920, by original designation. [Rhopalomelissa]. **Nomiinae**.

Lepidotrigona Schwarz, 1939a:132. Type species: *Trigona nitidiventris* Smith, 1857, by original designation. [Trigona]. **Meliponini**.

Leptergates Holmberg, 1887b:224, nomen nudum. **Emphorini**.

Leptergatis Holmberg, 1903:422. Type species: *Leptergatis halictoides* Holmberg, 1903, by designation of Lutz and Cockerell, 1920:592. **Emphorini**.

Leptoglossa Friese, 1925a:9, not Klug, 1839. Type species: *Leptoglossa paradoxa* Friese, 1925 = *Orphana inquirenda* Vachal, 1909, monobasic. See *Orphana*. Isotypic with *Ptoleglossa*; isotypic with *Orphana* by synonymy. **Andreninae**.

Leptometria Holmberg, 1903:409. Type species: *Leptometria pereyrae* Holmberg, 1903, by designation of Brèthes, 1910:213. **Emphorini**.

Leptophanthus Ruz and Toro, 1983:277. Type species: *Psaenythia nigra* Friese, 1916 (not Friese, 1908) = *Liphantus nitidus* Ruz and Toro, 1983, by original designation. [Liphantus]. **Panurginae**.

Leptorachina Mitchell, 1980:56. Type species: *Megachile laeta* Smith, 1853, by original designation. [Pseudocentron]. **Megachilini**.

Leptorachis Mitchell, 1934:301, 308. Type species: *Megachile petulans* Cresson, 1878, by original designation. [Megachile]. **Megachilini**.

Lestis Lepeletier and Serville, 1828:799. Type species: *Apis bombylans* Fabricius, 1775 (misidentified as *Apis muscaria* Fabricius, 1775; see Hurd and Michener, 1961), monobasic, fixed by Commission Opinion 657 (1963). **Xylocopini**.

Lestrimelitta Friese, 1903a:361. Type species: *Trigona limao* Smith, 1863, monobasic. [Trigona]. **Meliponini**.

Leucandrena Hedicke, 1933:215. Type species: *Apis sericea* Christ, 1791 (not Forster, 1771) = *Melitta barbilabris* Kirby, 1802, by original designation. [Andrena]. **Andreninae**.

Leuchalictus Warnecke, 1975b:98. Type species: *Apis leucozonaria* Schrank, 1781, by original designation. [Halictus]. **Halictini**.

Leucobombus Dalla Torre, 1880:40. Type species: *Apis terrestris* Linnaeus, 1758, by designation of Sandhouse, 1943:564. [Bombus]. Isotypic with *Bremus* Jurine, *Bremus* Panzer, *Bombus*, and *Terrestribombus*. **Bombini**.

Leuconomia Pauly, 1980:124. Type species: *Nomia candida* Smith, 1875, by original designation. [Nomia]. **Nomiinae**.

Leucosmia Robertson, 1903a:166, 171. Type species: *Osmia albiventris* Cresson, 1864, by original designation. **Osmiini**.

- Leucostelis* Noskiewicz, 1961:126, 132. Type species: *Gyrodroma ornatula* Klug, 1807, by original designation (p. 132). [Stelis]. **Anthidiini**.
- Leurotrigona* Moure, 1950a:244. Type species: *Trigona muelleri* Friese, 1900, by original designation. [Hypotrigona]. **Meliponini**.
- Libellulapis* Cockerell, 1906a:42. Type species: *Libellulapis antiquorum* Cockerell, 1906, monobasic. **Fossil**.
- Liefiinckella* Hurd and Moure, 1963:286. Type species: *Xylocopa smithii* Ritsema, 1876, by original designation. [Xylocopa]. **Xylocopini**.
- Lioceratina* Vecht, 1952:32. Type species: *Ceratina flavopicta* Smith, 1858, by original designation. [Ceratina]. **Ceratinini**.
- Liogastra* Perty, 1833:146. Type species: *Liogastra bicolor* Perty, 1833 = *Rhathymus bicolor* Lepeletier and Serville, 1828, monobasic. Isotypic with *Colax* and *Rhathymus* by synonymy. **Rhathymini**.
- Liopodus* Schulz, 1906:258, unjustified emendation of *Leiopodus* Smith, 1854. **Protepeolini**.
- Liopoecodes* Ruz, 1991:236. Type species: *Calliopsis xenopus* Ruz, 1991, by original designation. [Calliopsis]. **Panurginae**.
- Liopoeum* Friese, 1906b:176. Type species: *Camptopaeum hirsutulum* Spinola, 1851, by designation of Sandhouse, 1943:564. [Camptopoeum]. **Panurginae**.
- Lioproctus* Smith, 1879:6, unjustified emendation of *Leioproctus* Smith, 1853. **Colletinae**.
- Liosmia* Thomson, 1872:233, no included species; Friese, 1911b:438, included species. Type species: *Osmia claviventris* Thomson, 1872, by designation of Michener, 1941:159. [Osmia]. **Osmiini**.
- Liothgraphis* Sandhouse, 1943:564, incorrect subsequent spelling of *Liothgrapis* Cockerell, 1932. **Megachilini**.
- Liothgrapis* Cockerell, 1932:26, incorrect subsequent spelling of *Liothyrapis* Cockerell, 1911. [Coelioxys]. **Megachilini**.
- Liothyrapis* Cockerell, 1911b:246. Type species: *Coelioxys apicata* Smith, 1854 = *Coelioxys decipiens* Spinola, 1838, by original designation. [Coelioxys]. **Megachilini**.
- Liotrigona* Moure, 1961:223. Type species: *Trigona bottegoi* Magretti, 1895 = ? *Trigona madecassa* Saussure, 1891, by original designation. **Meliponini**.
- Liphanthus* Reed, 1894:645. Type species: *Liphanthus sabulosus* Reed, 1894, monobasic. **Panurginae**.
- Lipotriches* Gerstaeker, 1857:460. Type species: *Lipotriches abdominalis* Gerstaeker, 1857 = *Sphecodes cribrosa* Spinola, 1843, monobasic. **Nomiinae**.
- Lisotrigona* Moure, 1961:194. Type species: *Melipona cacciae* Nurse, 1907, by original designation. **Meliponini**.
- Lissopedia* Moure, 1994b:306. Type species: *Tetrapedia globulosa* Friese, 1899, by original designation. **Tapinotaspidini**.
- Lithandrena* Cockerell, 1906a:44. Type species: *Lithandrena saxorum* Cockerell, 1906, monobasic. **Fossil**.
- Lithanthidium* Cockerell, 1911d:225. Type species: *Lithanthidium perristre* Cockerell, 1911, monobasic. **Fossil**.
- Lithosmia* Alfken, 1935:188. Type species: *Megachile villosa* Schenck, 1853, not *Apis villosa* Fabricius, 1775 = *Osmia platycera* Gerstaeker, 1869. [Osmia]. Isotypic with *Arctosmia*. **Osmiini**.
- Lithurge* Latreille, 1825:463. Type species: *Andrena cornuta* Fabricius, 1787, monobasic. Latreille's original spelling (1825) has been regarded by many authors as French vernacular unavailable as a scientific name (e.g., Fox, 1902). Such authors use the emended Latinized form *Lithurgus* Berthold (1827), published in a translation of Latreille's work into German. The spelling *Lithurge*, as noted by Fox (1902), was used by Lepeletier and Serville (1828:795) but they were writing in French and used other French vernacular names. *Lithurge* was shown as the correct name by Sandhouse (1943) and has since been used by Michener (1944, 1951), Hurd (1979), and others in major studies and catalogues. I now believe, however, that the authors using *Lithurgus* are correct. **Lithurgini**.
- Lithurgomma* Moure, 1949b:277. Type species: *Lithurgomma wagenknechti* Moure, 1949, by original designation. *Trichothurgus* Moure and *Lithurgomma* were published simultaneously. Michener (1983) synonymized these names as first reviser and selected *Trichothurgus* as the generic name. **Lithurgini**.
- Lithurgopsis* Fox, 1902:138. Type species: *Lithurgus apicalis* Cresson, by original designation. **Lithurgini**.
- Lithurgus* Berthold, 1827:467, Latinization of *Lithurge* Latreille, 1825. Type species: *Andrena cornuta* Fabricius, 1787, monobasic. Blanchard, 1849:pl. 127 (1846), designated as the type species *Lithurgus fuscipennis* Lepeletier, 1841, which was not originally included. **Lithurgini**.
- Litomegachile* Mitchell, 1934:301, 308. Type species: *Megachile brevis* Say, 1837, by original designation. [Megachile]. **Megachilini**.
- Liturgus* Ashmead, 1899a:77, error for *Lithurgus* Berthold, 1827. **Lithurgini**.
- Lobonomia* Warncke, 1976:99. Type species: *Nomia lobata* Olivier, 1811, by original designation. [Nomia]. **Nomiinae**.
- Lomatalictus* Michener, 1978a:509. Type species: *Halictus malachurinus* Cockerell, 1937, by original designation. [Patellapis]. **Halictini**.
- Lonchoprella* Michener, 1989:673. Type species: *Lonchopria annexens* Michener, 1989, by original designation. [Lonchopria]. **Colletinae**.
- Lonchopria* Vachal, 1905a:204. Type species: *Lonchopria herbsti* Vachal, 1905 = *Colletes zonalis* Reed, 1892, monobasic. **Colletinae**.
- Lonchorhyncha* Michener, 1989:667. Type species: *Diphaglossa ecuadoria* Friese, 1925, by original designation. **Colletinae**.
- Lophalictus* Pesenko, 1986a:125. Type species: *Lasioglossum acuticerista* Pesenko, 1986, by original designation. [Lasioglossum]. **Halictini**.

- Lophanthophora* Brooks, 1988:464. Type species: *Anthophora porterae* Cockerell, 1900, by original designation. [Anthophora]. **Anthophorini**.
- Lophopedia* Michener and Moure, 1957:413. Type species: *Tetrapedia pygmaea* Schrottky, 1902, by original designation. [Paratetrapedia]. **Tapinotaspidini**.
- Lophothygater* Moure and Michener, 1955b:313. Type species: *Tetralonia decorata* Smith, 1879, by original designation. **Eucerini**.
- Lophotrigona* Moure, 1961:205. Type species: *Trigona cauifrons* Smith, 1857, by original designation. **Meliponini**.
- Loxoptilus* LaBerge, 1957:28. Type species: *Loxoptilus longifellator* LaBerge, 1957, by original designation. **Eucerini**.
- Lucasellus* Schulz, 1911:202, replacement for *Lucasius* Dours, 1872. Type species: *Halictus clavipes* Dours, 1872, autobasic. [Halictus]. **Halictini**.
- Lucasiellus* Cockerell, 1905d:272, replacement for *Lucasius* Dours, 1872. Type species: *Halictus clavipes* Dours, 1872, autobasic. [Halictus]. **Halictini**.
- Lucasius* Dours, 1872:350, not Kinahan, 1859. Type species: *Halictus clavipes* Dours, 1872, by designation of Sandhouse, 1943:566. [Halictus]. See *Lucasellus* and *Lucasiellus*. **Halictini**.
- Lutziella* Cockerell, 1922d:1, not Enderlein, 1922. Type species: *Perdita opuntiae* Cockerell, 1922, by original designation. [Perdita]. See *Cockerellula*. **Panurginae**.
- Lysicolletes* Rayment, 1935:208. Type species: *Paracolletes singularis* Rayment, 1935, by original designation. [Paracolletes]. **Colletinae**.
- Machaeris* Robertson, 1903b:104. Type species: *Sphecodes stygius* Robertson, 1893, by original designation. **Halictini**.
- Macrocerata* Latreille, 1810:339, 439, not Meigen, 1803. Type species: *Eucera antennata* Fabricius, 1793 = *Apis malvae* Rossi, 1790, by original designation. See *Tetralonia*. **Eucerini**.
- Macrogalea* Cockerell, 1930f:291. Type species: *Allodape candida* Smith, 1879, by original designation. **Allodapini**.
- Macroglossa* Radoszkowski, 1884:17, not Ochsenheimer, 1816. Type species: *Macroglossa oribazi* Radoszkowski, 1884 = *Macrocerata analis* Lepeletier, 1841, monobasic. See *Macroglossapis*. **Eucerini**.
- Macroglossapis* Cockerell, 1899c:14, replacement for *Macroglossa* Radoszkowski, 1884. Type species: *Macroglossa oribazi* Radoszkowski, 1884 = *Macrocerata analis* Lepeletier, 1841, autobasic. Isotypic with *Thygater* by synonymy. **Eucerini**.
- Macrohylaeus* Michener, 1965a:133. Type species: *Prosopis vidua* Smith, 1853 = *Prosopis aleyonea* Erichson, 1842, by original designation. [Hylaeus]. **Hylaeinae**.
- Macromegachile* Noskiewicz, 1948:48. Type species: *Apis lagopoda* Linnaeus, 1761, by original designation. Mitchell, 1980:23, incorrectly listed *Apis maritima* Kirby, 1802, as the type species. [Megachile]. **Megachilini**.
- Macronomadopsis* Rozen, 1958:93. Type species: *Nomadopsis micheneri* Rozen, 1958, by original designation. [Nomadopsis]. **Panurginae**.
- Macronomia* Cockerell, 1917c:468. Type species: *Nomia platycephala* Cockerell, 1917, by original designation. [Nomia]. **Nomiinae**.
- Macropis* Panzer, 1809:no. 16. Type species: *Megilla labiata* Fabricius, 1805, monobasic. *Macropis* has been attributed to Klug (in Panzer, 1809) but as pointed out in Commission Opinion 1383 (1986), Panzer provided the description. **Melittinae**.
- Macroterea* Smith, 1853:130. Type species: *Macroterea bicolor* Smith, 1853, monobasic. **Panurginae**.
- Macroterella* Timberlake, 1954:360. Type species: *Perdita mortuaria* Timberlake, 1954, by original designation. [Perdita]. **Panurginae**.
- Macroteropsis* Ashmead, 1899a:85. Type species: *Perdita latior* Cockerell, 1896, by original designation. **Panurginae**.
- Muculonomia* Wu, 1982:275. Type species: *Nomia terminata* Smith, by original designation. [Nomia]. **Nomiinae**.
- Madagaliclus* Pauly, 1984b:125. Type species: *Halictus suarezensis* Benoist, 1962, by original designation. **Halictini**.
- Madrosoma* Ashmead, 1899a:94, lapsus for *Mydrosoma* Smith, 1879. **Dissoglossini**.
- Maiella* Michener, 1942:282, replacement for *Orbitella* Ma, 1938. Type species: *Xylocopa confusa* Pérez, 1901, autobasic. [Xylocopa]. **Xylocopini**.
- Malanthidium* Pasteels, 1969a:26. Type species: *Anthidium malaccense* Friese, 1914, by original designation. **Anthidiini**.
- Malayapis* Baker, 1995a:67. Type species: *Andrena chrysocerhersonesus* Baker, 1995, by original designation. [Andrena]. **Andreninae**.
- Manithidium* Pasteels, 1969a:43. Type species: *Anthidium binghami* Friese, 1901 (first described under the homonymous name *Anthidium fraternum* Bingham, 1897), by original designation. **Anthidiini**.
- Manuelia* Vachal, 1905b:25. Type species: *Halictus gayi* Spinola, 1851, by designation of Daly, Michener, Moure, and Sakagami, 1987:104. Sandhouse (1943) designated "Halictus (Corynura) gayi" Spinola as the type species, but this is meaningless since both *Halictus gayi* and *Corynura gayi* were described by Spinola in the same work. **Manueliini**.
- Margandrena* Warneke, 1968:91. Type species: *Andrena marginata* Fabricius, 1776, by original designation. [Andrena]. **Andreninae**.
- Marghalictus* Warneke, 1975b:95. Type species: *Hylaeus marginellus* Schenck, 1853, by original designation. [Halictus]. **Halictini**.
- Martinapis* Cockerell, 1929f:19, replacement for *Martinella* Cockerell, 1903. Type species: *Melissodes luteicornis* Cockerell, 1896, autobasic. **Eucerini**.
- Martinella* Cockerell, 1903c:450, not Jousseaume, 1887. Type species: *Melissodes luteicornis* Cockerell, 1896, monobasic. [Melissodes]. See *Martinapis*. **Eucerini**.

- Massanthidium* Pasteels, 1969a:24. Type species: *Trachusa flavorufula* Pasteels, 1969, by original designation. [Trachusa]. **Anthidiini**.
- Mastrucatobombus* Krüger, 1917:66. Type species: *Bombus mastrucatus* Gerstaecker, 1869 = *Bombus wnrflenii* Radoszkowski, 1859, monobasic. [Bombus]. **Bombini**.
- Maximegachile* Guiglia and Pasteels, 1961:27. Type species: *Megachile maxillosa* Guérin-Méneville, 1845, by original designation. [Megachile]. **Megachilini**.
- Maxschwarzia* Pagliano and Scaramozzino, 1990:5, unnecessary replacement for *Meganomia* Cockerell, 1909; see Michener, 1992. Type species: *Nomia binghami* Cockerell, 1909, autobasic. **Meganomiinae**.
- Maynenomia* Pauly, 1984d:698. Type species: *Nomia maynei* Cockerell, 1937 = *Nomia testacea* Friese, 1914, by original designation. **Nomiinae**.
- Mecanthidium* Michener, 1942:278. Type species: *Paranthidium sonorum* Michener, 1942, by original designation. [Paranthidium]. **Anthidiini**.
- Mediocralictus* Pauly, 1984b:143. Type species: *Halictus mediocris* Benoist, 1962, by original designation. [Lasioglossum]. **Halictini**.
- Megabombus* Dalla Torre, 1880:40. Type species: *Bombus ligusticus* Spinola, 1805 = *Apis argillacea* Scopoli, 1763, monobasic. [Bombus]. Isotypic with *Odontobombus* by synonymy. **Bombini**.
- Megaceratina* Hirashima, 1971b:251. Type species: *Ceratina bonyssoni* Vachal, 1903 = *Ceratina sculpturata* Smith, 1854, by original designation. **Ceratinini**.
- Megachile* Latreille, 1802a:434. Type species: *Apis centuncularis* Linnaeus, 1758, by designation of Curtis, 1828:pl. 218. A subsequent designation, *Xylocopa muraria* Fabricius, 1804 = *Apis parietina* Fourcroy, 1785, was by Blanchard, 1840:408. Isotypic with *Anthenois* by synonymy. **Megachilini**.
- Megachileoides* Radoszkowski, 1874b:132. Type species: *Trachusa serratulae* Panzer, 1804 = *Apis hyssina* Panzer, 1798, by designation of Michener, 1995:375. Isotypic with *Trachusa* Panzer; isotypic with *Diphysis* by synonymy. **Anthidiini**.
- Megachiloidea* Mitchell, 1924:154. Type species: *Megachiloidea oenotherae* Mitchell, 1924, by original designation. *Megachiloidea* Saussure (1890) is an incorrect subsequent spelling of *Megachileoides* Radoszkowski and does not pre-occupy *Megachiloidea* Mitchell. **Megachilini**.
- Megachiloidea* Saussure, 1890:35, incorrect subsequent spelling of *Megachileoides* Radoszkowski, 1874, see Michener, 1995. **Anthidiini**.
- Megacilissa* Smith, 1853:123. Type species: *Megacilissa superba* Smith, 1853 = *Caupolicana fulvicollis* Spinola, 1851, monobasic. **Caupolicanini**.
- Megaloplitis* Tkaleč, 1993a:55. Type species: *Osmia tigrina* Morawitz, 1872, by original designation. [Hoplitis]. **Osmiini**.
- Megalobombus* Schulz, 1906:267, unjustified emendation of *Megabombus* Dalla Torre, 1880. [Bombus]. **Bombini**.
- Megalochila* Schulz, 1906:263, unjustified emendation of *Megachile* Latreille, 1802. **Megachilini**.
- Megalocilissa* Schulz, 1906:243, unjustified emendation of *Megacilissa* Smith, 1853. **Caupolicanini**.
- Megaloheriades* Peters, 1984:366. Type species: *Osmia schultzei* Friese, 1909, by original designation. **Osmiini**.
- Megalopta* Smith, 1853:83. Type species: *Megalopta idalia* Smith, 1853, designated by Commission Opinion 788 (1966). The earlier type designation of *Megalopta bituberculata* Smith, 1853, by Cockerell, 1900a:374, is invalidated. **Angochlorini**.
- Megaloptella* Schrottky, 1906a:312. Type species: *Halictus ochrias* Vachal, 1904, by original designation. [Megalopta]. **Angochlorini**.
- Megaloptidia* Cockerell, 1900a:373, 374. Type species: *Megalopta contradicta* Cockerell, 1900, by original designation. [Megalopta]. **Angochlorini**.
- Megaloptilla* Moure and Hurd, 1987:241. Type species: *Halictus callopus* Vachal, 1911, by original designation. [Megommation]. **Angochlorini**.
- Megaloptina* Eickwort, 1969:441. Type species: *Augochlora ogilviei* Cockerell, 1930, by original designation. [Megommation]. **Angochlorini**.
- Megaloptodes* Moure, 1959:183. Type species: *Megalopta bituberculata* Smith, 1853, by original designation. **Nomiinae**.
- Megalosmia* Schmiedeknecht, 1885:23. Type species: *Osmia grandis* Morawitz, 1873, by designation of Sandhouse, 1943:568. **Osmiini**.
- Megamegilla* Brooks, 1988:505. Type species: *Apis atraensis* Fabricius, 1793, by original designation. [Amegilla]. **Anthophorini**.
- Megandrena* Cockerell, 1927a:42. Type species: *Andrena enceliae* Cockerell, 1927, by original designation. [Andrena]. **Andreninae**.
- Meganomia* Cockerell, 1909a:402. Type species: *Nomia binghami* Cockerell, 1909, monobasic. [Nomia]. **Meganomiinae**.
- Meganomioides* Pesenko, 1983:183. Type species: *Nomioidea karachensis* Cockerell, 1911, by original designation. [Ceylalictus]. **Nomoioidinae**.
- Meganthidium* Popov, 1950a:315. Type species: *Anthidium christophi* Morawitz, 1884 = *Anthidium superbum* Radoszkowski, 1876, by original designation. **Anthidiini**.
- Megapis* Ashmead, 1904a:120. Type species: *Apis dorsata* Fabricius, 1793, by original designation. **Apini**.
- Megascirtetica* Moure and Michener, 1955b:264. Type species: *Macrocerca mephistophelica* Schrottky, 1902, by original designation. **Eucerini**.
- Megaxylocopa* Hurd and Moure, 1963:151. Type species: *Apis frontalis* Olivier, 1789, by original designation. [Xylocopa]. **Xylocopini**.
- Megella* Pasteels, 1965:167. Type species: *Megachile malimbana* Strand, 1911, by original designation. [Megachile]. **Megachilini**.

- Meghylaeus* Cockerell, 1929b:314. Type species: *Palaeorhiza gigantea* Cockerell, 1926 = *Prosopis fijiensis* Cockerell, 1909, by original designation. [Hylaeus]. **Hylaeinae**.
- Megilla* Fabricius, 1804:328. Type species: *Apis pilipes* Fabricius, 1775 = *Apis plumipes* Pallas, 1772, designated by Commission Opinion 1383 (1986). *Megilla labiata* Fabricius, 1804, was designated by Westwood, 1840a:158, and *Apis acervorum* Linnaeus, 1758, was designated by Richards, 1935:172, as the type species of *Megilla*. These designations would have made *Megilla* the correct name for *Macropis* or a junior synonym of *Bombus*, respectively, although *Apis acervorum* was interpreted as an *Anthophora* at the time of Richard's work. Isotypic with *Podalirius* and *Anthophora*. **Anthophorini**.
- Megomalopsis* Michener and Moure, 1957:430. Type species: *Exomalopsis diversipes* Cockerell, 1949 = *Exomalopsis mellipes* Cresson, 1878, by original designation. **Exomalopsini**.
- Megommation* Moure, 1943b:479. Type species: *Halictus insignis* Smith, 1853, by original designation. **Augochlorini**.
- Mehelya* Popov, 1939:167, not Csiki, 1903, replacement for *Barbata* Méhely, 1935. Type species: *Prosopis friesei* Alfken, 1904, by original designation. [Prosopis]. See *Mehelyana*. **Hylaeinae**.
- Mehelyana* Sandhouse, 1943:569, replacement for *Barbata* Méhely, 1935, and *Mehelya* Popov, 1939. Type species: *Prosopis friesei* Alfken, 1904, autobasic. **Hylaeinae**.
- Melaliphanthus* Ruz and Toro, 1983:271. Type species: *Liphanthus atratus* Ruz and Toro, 1983, by original designation. [Liphanthus]. **Panurginae**.
- Melanapis* Cameron, 1902a:420. Type species: *Melanapis violaceipennis* Cameron, 1902 = *Andrena fuscosa* Erichson, 1835, monobasic. **Andreninae**.
- Melandrena* Pérez, 1890:170. Type species: *Apis thoracica* Fabricius, 1775, by present designation. *Andrena morio* Brullé, 1832, designated by Hedicke, 1933:216, was not among the species originally included by Pérez. [Andrena]. **Andreninae**.
- Melanempis* Saussure, 1890:84. Type species: *Phileremus ater* Saussure, 1890, monobasic. [Phileremus]. **Ammobatini**.
- Melaneutricharea* Tkalcú, 1993b:803. Type species: *Megachile holmanni* Tkalcú, 1983, by original designation. [Megachile]. **Megachilini**.
- Melanoanthidium* Tkalcú, 1967:91. Type species: *Anthidium montanum* Morawitz, 1864, by original designation. [Anthidium]. **Anthidiini**.
- Melanobombus* Dalla Torre, 1880:40. Type species: *Apis lapidaria* Linnaeus, 1758, by designation of Sandhouse, 1943:569. [Bombus]. Isotypic with *Lapidariobombus*. **Bombini**.
- Melanocentris* Friese, 1900:244, 246. Type species: *Centris atra* Friese, 1899, by designation of Sandhouse, 1943:569. [Centris]. **Centridini**.
- Melanocoelioxys* Mitchell, 1973:78. Type species: *Coelioxys tolteca* Cresson, 1878, by original designation. [Coelioxys]. **Megachilini**.
- Melanomada* Cockerell, 1903d:587. Type species: *Nomada grindeliae* Cockerell, 1903, by original designation. [Nomada]. **Brachynomadini**.
- Melanomia* Pauly, 1990:149; also described as new by Pauly, 1991:310. Type species: *Nomia melanosoma* Benoist, 1963, by original designation. **Nomiinae**.
- Melanosarus* Mitchell, 1934:303, 307. Type species: *Megachile xylocopoides* Smith, 1853, by original designation. [Megachile]. **Megachilini**.
- Melanosmia* Schmiedeknecht, 1885:19[885]. Type species: *Osmia fuciformis* Latreille, 1811 = *Apis xanthomelana* Kirby, 1802, by designation of Sandhouse, 1939:33. [Osmia]. **Osmiini**.
- Melanostelis* Ashmead, 1898:283. Type species: *Melanostelis betheli* Ashmead, 1898 = *Stelis rubi* Cockerell, 1898, by original designation. **Anthidiini**.
- Melanthidium* Cockerell, 1947:106. Type species: *Melanthidium carri* Cockerell, 1947, by original designation. **Anthidiini**.
- Melanthidium* Pasteels, 1969a:90, not Cockerell, 1947. Type species: *Anthidium concolor* Friese, 1913, by original designation. See *Nigranthidium* and *Warnckeia*. **Anthidiini**.
- Melea* Sandhouse, 1943:569, replacement for *Anthemoessa* Robertson, 1905. Type species: *Anthophora abrupta* Say, 1837, autobasic. **Anthophorini**.
- Melecta* Latreille, 1802a:427. Type species: *Apis punctata* Fabricius, 1775 = *Apis albifrons* Forster, 1771, by designation of Latreille, 1810:439. Isotypic with *Symmorphia*. **Melectini**.
- Melectoides* Taschenberg, 1883:75. Type species: *Melectoides senex* Taschenberg, 1883, by original designation. **Isepeolini**.
- Melectomimus* Linsley, 1939a:448. Type species: *Melecta edwardsii* Cresson, 1878, by original designation. [Melecta]. **Melectini**.
- Melectomorpha* Linsley, 1939a:451. Type species: *Melecta californica* Cresson, 1878, by original designation. [Melecta]. **Melectini**.
- Melikerria* Moure, 1992:34. Type species: *Apis compressipes* Fabricius, 1804, by original designation. [Melipona]. **Meliponini**.
- Meliphila* Schrottky, 1902b:310. Type species: *Meliphila ipomoeae* Schrottky, 1902 = *Melitoma euglossoides* Lepeletier and Serville, 1828, by original designation. Isotypic with *Melitoma* by synonymy. **Emphorini**.
- Meliphilopsis* Roig-Alsina, 1994:183. Type species: *Meliphilopsis melanandra* Roig-Alsina, 1994, by original designation. **Emphorini**.
- Meliplebeia* Moure, 1961:229. Type species: *Trigona beccarii* Gribodo, 1879, by original designation. **Meliponini**.
- Melipona* Illiger, 1806:157. Type species: *Apis favosa* Fabricius, 1798, by designation of Latreille, 1810:439. *Melipona fulva* Lepeletier, 1841, designated by Blanchard, 1849:pl. 129 (1845), was not originally included. **Meliponini**.
- Meliponorytes* Tosi, 1896:352. Type species: *Meliponorytes succini* Tosi, 1896, by designation of Sandhouse, 1943:570. **Fossil. Meliponini**.

- Meliponula* Cockerell, 1934b:47. Type species: *Melipona bocandei* Spinola, 1851, by original designation. [Trigona]. **Meliponini.**
- Melissa* Smith, 1854:279. Type species: *Mesocheira azurea* Lepeletier and Serville, 1825, by designation of Sandhouse, 1943:570. Isotypic with *Mesoplia*. **Ericocidini.**
- Melissina* Cockerell, 1911e:670. Type species: *Melissina viator* Cockerell, 1911, monobasic. **Eucerini.**
- Melissoda* Lepeletier, 1841:508. Type species: *Melissoda latreillii* Lepeletier, 1841 = *Acanthopus goryi* Romand, 1840, monobasic. Isotypic with *Ischnocera*; isotypic with *Ctenioschelus* by synonymy. **Ericocidini.**
- Melissoide* Latreille, 1825:464, nomen nudum. French vernacular. **Eucerini?**
- Melissodes* Berthold, 1827:468, nomen nudum, Latinization of *Melissode* Latreille. There is no certainty that these names refer to *Melissodes* Latreille, 1829. They are listed here to avoid possible confusion. **Eucerini?**
- Melissodes* Latreille, 1829:354, no included species. Romand, 1841:6, included *Melissodes fonscolombei* Romand, 1841; this specific name was suppressed by Commission Opinion 750 (1965). Type species: *Melissodes leprieuri* Blanchard, 1846, first valid included species and designated as type species by Opinion 750. Taschenberg, 1883:78, subsequently designated *Macrocera rustica* Say, 1837, as the type species. **Eucerini.**
- Melissoptila* Holmberg, 1884:119. Type species: *Melissoptila tandilensis* Holmberg, 1884, monobasic. Isotypic with *Thyreothremma* and *Thyreotremata* by synonymy. **Eucerini.**
- Melitoma* Berthold, 1827:468, nomen nudum, Latinization of *Melitome* Latreille. **Emphorini?**
- Melitoma* Lepeletier and Serville, 1828:529. Type species: *Melitoma euglossoides* Lepeletier and Serville, 1828, monobasic. Isotypic with *Meliphila* by synonymy. **Emphorini.**
- Melitome* Latreille, 1825:464, nomen nudum, French vernacular. **Emphorini?**
- Melitribus* Rayment, 1930a:217. Type species: *Melitribus greavesi* Rayment, 1930, by original designation. Rayment, 1930b:61, subsequently designated *Gastropsis victoriae* Cockerell, 1906, as the type species. **Stenotritidae.**
- Melitta* Kirby, 1802:117. Type species: *Melitta tricincta* Kirby, 1802, by designation of Richards, 1935:172. Isotypic with *Kirbya*. **Melittinae.**
- Melittidia* Dalla Torre, 1896:99, lapsus for *Mellitidia* Guérin-Méneville, 1830. **Nomiinae.**
- Melittoides* Friese, 1921a:177. Type species: *Andrena melittoides* Friese, 1899, by absolute tautonymy. **Andreninae.**
- Melittosmithia* Schulz, 1906:244, replacement for *Smithia* Vachal, 1897. Type species: *Scrapter carinata* Smith, 1862, by designation of Cockerell, 1910b:358. **Euryglossinae.**
- Melittoxena* Morawitz, 1873b:154. Type species: *Nomada truncata* Nylander, 1848, monobasic. **Blastini.**
- Melitturga* Latreille, 1809:176. Type species: *Eucera clavicornis* Latreille, 1806, monobasic. **Panurginae.**
- Meliturga* Lepeletier and Serville, 1828:799, unjustified emendation of *Melitturga* Latreille, 1809. **Panurginae.**
- Meliturgopsis* Ashmead, 1899a:62, no included species: Cockerell, 1909c (May 13):414, included a species. Type species: *Emphoropsis murihirta murina* Cockerell, 1909, first included species, designated by Sandhouse, 1943:572. The inclusion and designation of *Anthophora aurulento-caudata* Dours, 1869, by Vachal, 1909b:9, was published in July and is junior to Cockerell (1909c). **Anthophorini.**
- Meliturgula* Friese, 1903b:33. Type species: *Meliturgula braunsi* Friese, 1903, monobasic. **Panurginae.**
- Meliwillea* Roubik, Segura, and Camargo, 1997:102. Type species: *Meliwillea bivea* Roubik, Segura, and Camargo, 1997, by original designation. **Meliponini.**
- Mellitidia* Guérin-Méneville, 1830:270. Type species: *Andrena australis* Guérin-Méneville, 1830, monobasic. **Nomiinae.**
- Melliturga* Latreille, 1809:177, lapsus for *Melitturga* Latreille, 1809. **Panurginae.**
- Mendacibombus* Skorikov, 1914a:125. Type species: *Bombus mendax* Gerstaecker, 1869, by designation of Sandhouse, 1943:572. [Bombus]. **Bombini.**
- Mermiglossa* Friese, 1912:188. Type species: *Mermiglossa rufa* Friese, 1912, monobasic. **Panurginae.**
- Meroglossa* Smith, 1853:33. Type species: *Meroglossa canaliculata* Smith, 1853, monobasic. **Hylaeinae.**
- Meroglossula* Perkins, 1912:99. Type species: *Meroglossa eucaelypti* Cockerell, 1910, monobasic. [Meroglossa]. **Hylaeinae.**
- Merrophites* Warncke, 1979:133. Type species: *Dufourea merceti* Vachal, 1907, by original designation. [Rophites]. **Rophitinae.**
- Mesanthidiellum* Pasteels, 1969a:83. Type species: *Mesanthidiellum amoenum* Pasteels, 1969, by original designation. **Anthidiini.**
- Mesanthidium* Popov, 1950a:316. Type species: *Anthidium pentagonum* Gussakovskij, 1930, by original designation. **Anthidiini.**
- Mesocheira* Lepeletier and Serville, 1825:106. Type species: *Melecta bicolor* Fabricius, 1804, by designation of Taschenberg, 1883:72. **Ericocidini.**
- Mesochira* Agassiz, 1846:20; Schulz, 1906:257, unjustified emendation of *Mesocheira* Lepeletier and Serville, 1825. **Ericocidini.**
- Mesonychiun* Lepeletier and Serville, 1825:107. Type species: *Mesonychium coeruleescens* Lepeletier and Serville, 1825, monobasic. **Ericocidini.**
- Mesoplia* Lepeletier, 1841:457. Type species: *Mesocheira azurea* Lepeletier and Serville, 1825, monobasic. Isotypic with *Melissa*. **Ericocidini.**
- Mesotrichia* Westwood, 1838:112. Type species: *Mesotrichia torrida* Westwood, 1838, monobasic. **Xylocopini.**
- Mesoxaea* Hurd and Linsley, 1976:41. Type species: *Oxaea nigerrima* Friese, 1912, by original designation. **Oxaeinae.**
- Metadioxys* Popov, 1947:88. Type species: *Dioxys formosa* Morawitz, 1875, by original designation. **Dioxyini.**

- Metallinella* Tkalcú, 1966:200. Type species: *Osmia atrocaerulea* Schilling, 1849 = *Eucera brevicornis* Fabricius, 1798, by original designation. **Osmiini**.
- Metanegachile* Tkalcú, 1967:102. Type species: *Anthophora albisecta* Klug, 1817, by original designation. [Megachile]. **Megachilini**.
- Metapsaenithia* Timberlake, 1969:89. Type species: *Calliopsis abdominalis* Cresson, 1878, by original designation. **Panurginae**.
- Metapsithyrus* Popov, 1931a:135. Type species: *Apis campestris* Panzer, 1801, by original designation. [Psithyrus]. **Bombini**.
- Metasamba* Michener, 1981:69. Type species: *Hoplomelitta fasciata* Michener, 1981, by original designation. [Hoplomelitta]. **Dasyopodinae**.
- Metatrachusa* Pasteels, 1969a:22. Type species: *Anthidium pendleburyi* Cockerell, 1927, by original designation. [Trachusa]. **Anthidiini**.
- Metylaeus* Bridwell, 1919:126, 131. Type species: *Metylaeus cibratus* Bridwell, 1919, by original designation. **Hylaeinae**.
- Metziella* Michener, 1942:273. Type species: *Prosopis potens* Metz, 1911 = *Prosopis sparsa* Cresson, 1869, by original designation. [Hylaeus]. **Hylaeinae**.
- Mexalictus* Eickwort, 1978:567. Type species: *Mexalictus micheneri* Eickwort, 1978, by original designation. **Halictini**.
- Michanthidium* Urban, 1994a:281, replacement for *Gnathanthidium* Urban. Type species: *Gnathanthidium sakagamii* Urban, autobasic. **Anthidiini**.
- Michenerapis* Hirashima and Liefstink, 1982:5. Type species: *Palaeorhiza bicolor* Hirashima and Liefstink, 1982, by original designation. [Palaeorhiza]. **Hylaeinae**.
- Michenerella* Krombein, 1950:122. Type species: *Heriades paganensis* Yasumatsu, 1942, by original designation. [Heriades]. **Osmiini**.
- Micheneria* Kerr, Pisani, and Aily, 1967:139, not Orfila and Rossi, 1956. Type species: *Melipona scutellaris* Latreille, 1811, by original designation. [Melipona]. See *Michmelia*. **Meliponini**.
- Michenerula* Bohart, 1965:320. Type species: *Michenerula beameri* Bohart, 1965, by original designation. **Rophitinae**.
- Michmelia* Moure, 1975:621, replacement for *Micheneria* Kerr, Pisani, and Aily. Type species: *Melipona scutellaris* Latreille, 1811, autobasic. [Melipona]. **Meliponini**.
- Micralictoides* Timberlake, 1939:397. Type species: *Halictoides ruficaudus* Michener, 1937, by original designation. [Dufourea]. **Rophitinae**.
- Micramegilla* Brooks, 1988:508. Type species: *Anthophora niveata* Friese, 1905, by original designation. [Amegilla]. **Anthophorini**.
- Micrandrena* Ashmead, 1899a:89. Type species: *Micrandrena pacifica* Ashmead, 1899 = *Andrena melanochroa* Cockerell, 1898, by original designation. **Andreninae**.
- Micranthidium* Cockerell, 1930b:45. Type species: *Anthidium truncatum* Smith, 1854, by original designation. [Pachyanthidium]. **Anthidiini**.
- Micranthophora* Cockerell, 1906d:66. Type species: *Anthophora curta* Provancher, 1895, by original designation. **Anthophorini**.
- Micrapis* Ashmead, 1904a:122. Type species: *Apis florea* Fabricius, 1787, by original designation. **Apini**.
- Micraungochlora* Schrottky, 1909b:483, no included species; Schrottky, 1909a:138, included one species. Type species: *Micraungochlora sphaerocephala* Schrottky, 1909, first included species. Isotypic with *Tennosomula* by synonymy. **Augochlorini**.
- Micrieriades* Mavromoustakis, 1958:444. Type species: *Heriades parnesica* Mavromoustakis, 1958, by original designation. [Heriades]. **Osmiini**.
- Microcolletes* Michener, 1965a:55. Type species: *Paracolletes halictiformis* Cockerell, 1916 (not *Euryglossa halictiformis* Smith, 1879, homonym in *Leioproctus*) = *Leioproctus halictomimus* Michener, 1965 = *Paracolletes minutus* Cockerell, 1916, by original designation. [Leioproctus]. **Colletinae**.
- Microdontura* Cockerell, 1929b:322. Type species: *Microdontura mellea* Cockerell, 1929, monobasic. **Euryglossinae**.
- Microhalictus* Warneke, 1975b:85. Type species: *Melitta minutissima* Kirby, 1802, by original designation. [Halictus]. **Halictini**.
- Microhesma* Michener, 1965a:113. Type species: *Brachyhesma incompleta* Michener, 1965, by original designation. [Brachyhesma]. **Euryglossinae**.
- Microhoplitis* Tkalcú, 1993b:811. Type species: *Osmia hohmanni* Tkalcú, 1993, by original designation. [Osmia]. **Osmiini**.
- Micromelecta* Baker, 1906:143. Type species: *Melecta maculata* Cresson, 1879, by original designation. Isotypic with *Zacosmia*. **Melectini**.
- Micromination* Moure, 1969:247. Type species: *Micromination larocai* Moure, 1969, by original designation. **Augochlorini**.
- Micronomada* Cockerell and Atkins, 1902:44. Type species: *Nomada modesta* Cresson, 1863, by original designation. [Nomada]. **Nomadini**.
- Micronomadopsis* Rozen, 1958:107. Type species: *Nomadopsis fracta* Rozen, 1958, by original designation. [Nomadopsis]. **Panurginae**.
- Micronychapis* Moure and Michener, 1955b:286. Type species: *Tetralonia duckei* Friese, 1908, by original designation. **Eucerini**.
- Micropasites* Linsley, 1942:130. Type species: *Neopasites cressoni* Crawford, 1916, by original designation. [Gnathopasites]. **Biastini**.
- Micropasites* Warneke, 1983:283, not Linsley, 1942. Type species: *Ammobates minutissimus* Mavromoustakis, 1959, renamed *tunensis* Warneke, 1983, because of homonymy in *Pasites*. [Pasites]. See *Ebmeriana*. **Ammobatini**.
- Microrophites* Warneke, 1979:133. Type species: *Rophites quadridentatus* Warneke, 1979, by original designation. [Rophites]. **Rophitinae**.

- Microsphecodes* Eickwort and Stage, 1972:501. Type species: *Sphecodes kathleenae* Eickwort, 1972, by original designation. [Sphecodes]. **Halictini**.
- Microstelis* Robertson, 1903a:170, 175. Type species: *Stelis lateralis* Cresson, 1864, by original designation. **Anthidiini**.
- Microthurge* Michener, 1983:181. Type species: *Lithurgus pharcidontus* Moure, 1948, by original designation. **Lithurgini**.
- Mielkeanthidium* Urban, 1996:121. Type species: *Mielkeanthidium nigripes* Urban, 1996, by original designation. **Anthidiini**.
- Mimandrena* Lanham, 1949:217. Type species: *Andrena imitatrix* Cresson, 1872, by original designation. [Andrena]. **Andreninae**.
- Mimoxylocopa* Hurd and Moure, 1963:203. Type species: *Xylocopa rufipes* Smith, 1852, by original designation. [Xylocopa]. **Xylocopini**.
- Mimulapis* Bridwell, 1919:162. Type species: *Mimulapis versatilis* Bridwell, 1919, by original designation. **Rophitinae**.
- Minutodufourea* Ebmer, 1984:361. Type species: *Dufourea minutissima* Ebmer, 1976, by original designation. [Dufourea]. **Rophitinae**.
- Mitchellapis* Michener, 1965a:211. Type species: *Megachile fabricator* Smith, 1868, by original designation. [Megachile]. **Megachilini**.
- Mitsukuriapis* Hirashima, LaBerge, and Ikudome, in Ikudome, 1994:6, replacement for *Mitsukuriella* Hirashima and LaBerge. Type species: *Nomia japonica* Smith, 1873, autobasic. [Andrena]. **Andreninae**.
- Mitsukuriella* Hirashima and LaBerge, 1965, in Hirashima, 1965a:472, not Heding and Panning, 1954. Type species: *Nomia japonica* Smith, 1873, by original designation. [Andrena]. See *Mitsukuriapis*. **Andreninae**.
- Monia* Westwood, 1875:221, not Gray, 1850. Type species: *Monia grisea* Westwood, 1875, monobasic. See *Monidia*. **Colletinae**.
- Monidia* Cockerell, 1905c:9, replacement for *Monia* Westwood, 1875. Type species: *Monia grisea* Westwood, 1875, autobasic. **Colletinae**.
- Monilapis* Cockerell, 1931f:529. Type species: *Hylaeus tomentosus* Eversmann, 1852, by original designation. [Halictus]. **Halictini**.
- Monilosmia* Robertson, 1903a:166, 171. Type species: *Osmia canadensis* Cresson, 1864 = *Osmia simillima* Smith, 1853, by original designation. **Osmiini**.
- Monoeca* Lepeletier and Serville, 1828:528. Type species: *Monoeca brasiliensis* Lepeletier and Serville, 1828, monobasic. **Tapinotaspidini**.
- Monoepelous* Bischff, 1930:3. Type species: *Apis variegata* Linnaeus, by original designation. Named in synonymy of *Epeolus* s. str. as contrast to *Diepeolus*. [Epeolus]. Isotypic with *Epeolus*. **Epeolini**.
- Monosmia* Tkale, 1974a:337. Type species: *Osmia apicata* Smith, by original designation. [Osmia]. **Osmiini**.
- Monoxylocopa* Hurd and Moure, 1963:127. Type species: *Xylocopa abbreviata* Hurd and Moure, 1963, by original designation. [Xylocopa]. **Xylocopini**.
- Monumetha* Cresson, 1864:387. Type species: *Chelostoma albifrons* Kirby, 1837, by designation of Titus, 1904a:26. **Osmiini**.
- Morawitzella* Popov, 1957:916. Type species: *Epimethea nana* Morawitz, 1880, by original designation. **Rophitinae**.
- Morawitzia* Friese, 1902:185. Type species: *Morawitzia panurgooides* Friese, 1902, by designation of Sandhouse, 1943:574. Sandhouse (1943) considered this genus monobasic, but two names (one called a variety) were included by Friese (1902). **Rophitinae**.
- Morgania* Smith, 1854:253. Type species: *Pasites dichroa* Smith, 1854, monobasic. **Ammobatini**.
- Morphanthidium* Pasteels, 1969b:423. Invalid because no type species designated; three included species. Synonym of *Ardenthidium*, to judge by two of the included species, and was presumably intended by Pasteels to be the same as *Ardenthidium*. [Anthidium]. **Anthidiini**.
- Morphella* Pasteels, 1965:537. Type species: *Megachile biseta* Vachal, 1903, by original designation. [Chalicodoma]. **Megachilini**.
- Moureana* Mitchell, 1980:56. Type species: *Megachile anthidioides* Radoszkowski, 1874, by original designation. [Pseudocentron]. **Megachilini**.
- Moureanthidium* Urban, 1995a:37. Type species: *Dianthidium subarenarium* Schwarz, 1933, by original designation. **Anthidiini**.
- Mourecotelles* Toro and Cabezas, 1977:50. Type species: *Mourecotelles mixta* Toro and Cabezas, 1977, by original designation. **Colletinae**.
- Mourella* Schwarz, 1946, in Moure, 1946a:442. Type species: *Melipona caerulea* Friese, 1900, by original designation. **Meliponini**.
- Mucidobombus* Krüger, 1920:350. Type species: *Bombus mucidus* Gerstaecker, 1869, monobasic. Krüger gave no subgeneric characters, but according to the Code, 3rd ed., Art. 12(b)(5), the name is nonetheless valid. Isotypic with *Mucidobombus* Skorikov. **Bombini**.
- Mucidobombus* Skorikov, 1922b:149. Type species: *Bombus mucidus* Gerstaecker, 1869, by designation of Sandhouse, 1943:574. Homonym and junior synonym of and isotypic with *Mucidobombus* Krüger, 1920. **Bombini**.
- Mycterochlaora* Eickwort, 1969:423. Type species: *Halictus repandirostris* Vachal, 1911, by original designation. [Augochlora]. **Augochlorini**.
- Mydrosoma* Smith, 1879:5. Type species: *Mydrosoma metallicum* Smith, 1879 = *Apista opalina* Smith, 1861, monobasic. **Dissoglossini**.

- Mydrosomella* Michener, 1986b:194. Type species: *Diphaglossa (?) gaullei* Vachal, 1904, by original designation. **Dissoglossini**.
- Mystacanthophora* Brooks, 1988:466. Type species: *Anthophora montana* Cresson, 1869, by original designation. [Anthophora]. **Anthophorini**.
- Mystacosmia* Snelling, 1967:104. Type species: *Osmia nemoris* Sandhouse, 1924, by original designation. [Osmia]. **Osmiini**.
- Nananthidium* Moure, 1947a:26. Type species: *Nananthidium bettyae* Moure, 1947, by original designation. **Anthidiini**.
- Nannotrigona* Cockerell, 1922e:9. Type species: *Melipona testaceicornis* Lepetier, 1836, by original designation. **Meliponini**.
- Nanocolletes* Warncke, 1978:341. Type species: *Colletes nanus* Friese, 1898, by original designation. [Colletes]. **Colletinae**.
- Nanoxylocopta* Hurd and Moure, 1963:99. Type species: *Xylocopa ciliata* Burmeister, 1876, by original designation. [Xylocopa]. **Xylocopini**.
- Nasutapis* Michener, 1970:208. Type species: *Nasutapis straussorum* Michener, 1970, by original designation. **Allodapini**.
- Navicularia* Méhely, 1935:34, 140. Invalid because no type species was designated. [Prosopis]. **Hylaeinae**.
- Navicularia* Popov, 1939:168. Type species: *Mellinus variegatus* Fabricius, 1798, by original designation. [Prosopis]. **Hylaeinae**.
- Neagapostemon* Cure, 1989:295. Type species: *Pseudagapostemon cyanomelas* Cure, 1989, by original designation. Cure (1989) attributes the specific name *cyanomelas* to Moure, but earlier usages were *nomina nuda*; Cure was the first to describe the species. [Pseudagapostemon]. **Halictini**.
- Nealictus* Pesenko, 1984:346. Type species: *Halictus parallelus* Say, 1837, by original designation. [Halictus]. **Halictini**.
- Neanthidium* Pasteels, 1969a:93. Type species: *Anthidium octodentatum* Pérez, 1895, by original designation. **Anthidiini**.
- Nectarodiaeta* Holmberg, 1887b:225, nomen nudum. **Eucerini**.
- Nectarodiaeta* Holmberg, 1903:420. Type species: *Nectarodiaeta oliveirae* Holmberg, 1903, monobasic. **Eucerini**.
- Neffapis* Ruz, 1995, in Rozen and Ruz, 1995:3. Type species: *Neffapis longilingna* Ruz, 1995, by original designation. **Panurginae**.
- Neglectella* Pasteels, 1965:431. Type species: *Megachile armatipes* Friese, 1909, by original designation. [Chalicodoma]. **Megachilini**.
- Nemandrena* LaBerge, 1971a:48. Type species: *Andrena torulosa* LaBerge, 1971, by original designation. [Andrena]. **Andreninae**.
- Neoashmeadiella* Gupta, 1990:56. Type species: *Ashmeadiella indica* Gupta, 1990, by original designation. [Ashmeadiella]. **Megachilini**.
- Neoceratina* Perkins, 1912:117. Type species: *Neoceratina australensis* Perkins, 1912, monobasic. **Ceratinini**.
- Neochalicodoma* Pasteels, 1970:231. Type species: *Chalicodoma pseudolaminata* Pasteels, 1965, by original designation. [Chalicodoma]. **Megachilini**.
- Neochelynia* Schrottky, 1920:187. Type species: *Neochelynia paulista* Schrottky, 1920, monobasic. **Megachilini**.
- Neocoelioxys* Mitchell, 1973:64. Type species: *Coelioxys assumptionis* Schrottky, 1911, by original designation. [Coelioxys]. **Megachilini**.
- Neocorynura* Schrottky, 1910:540, replacement for *Cacosoma* Smith, 1879. Type species: *Cacosoma discolor* Smith, autobasic. **Augochlorini**.
- Neocorynuroides* Eickwort, 1969:404. Type species: *Halictus rhytis* Vachal, 1904, by original designation. [Neocorynura]. **Augochlorini**.
- Neocressoniella* Gupta, 1993:172. Type species: *Megachile carbonaria* Smith, 1853, by original designation. [Cressoniella]. **Megachilini**.
- Neoeutricharaea* Rebmann, 1967:36. Type species: *Apis rotundata* Fabricius, 1787, by original designation. [Megachile]. **Megachilini**.
- Neofidelia* Moure and Michener, 1955a:202. Type species: *Neofidelia profuga* Moure and Michener, 1955, by original designation. **Fideliini**.
- Neohalictoides* Viereck, 1904b:261. Type species: *Panurgus maurus* Cresson, 1878, by original designation. **Rophitinae**.
- Neolarra* Ashmead, 1890:8. Type species: *Neolarra pruinosa* Ashmead, 1890, monobasic. **Neolarrini**.
- Neoliphanthus* Ruz and Toro, 1983:274. Type species: *Liphanthus bicellularis* Ruz and Toro, 1983, by original designation. [Liphanthus]. **Panurginae**.
- Neomegachile* Mitchell, 1934:302, 306. Type species: *Megachile chichimeca* Cresson, 1878, by original designation. [Megachile]. **Megachilini**.
- Neopanurgus* Schwammberger, 1971:2. Type species: *Neopanurgus richteri* Schwammberger, 1971, by original designation. **Panurginae**.
- Neopasiphae* Perkins, 1912:114. Type species: *Neopasiphae mirabilis* Perkins, 1912, monobasic. **Colletinae**.
- Neopasites* Ashmead, 1898:284. Type species: *Phileremus fulviventris* Cresson, 1878, by original designation. Isotypic with *Gnathopasites*. **Biastini**.
- Neoperdita* Ashmead, 1899a:85. Type species: *Perdita zebra* Cresson, 1878, by original designation. **Panurginae**.
- Neoscirtetica* Schrottky, 1913:256, replacement for *Scirtetica* Holmberg, 1903. Type species: *Scirtetica antarctica* Holmberg, 1903, autobasic. Isotypic with *Alloscirtetica* and *Holmbergiapis*. **Eucerini**.
- Neosmia* Tkalcu, 1974a:333. Type species: *Osmia gracilicornis* Pérez, by original designation. [Osmia]. **Osmiini**.
- Neotrypetes* Robertson, 1918a:91. Type species: *Trypetes productus* Robertson, 1905 = *Megachile variolosa* Cresson, 1872, by original designation. **Osmiini**.

- Neoxylocopa* Michener, 1954:157. Type species: *Apis brasiliatorum* Linnaeus, 1767, by original designation. [Xylocopa]. **Xylocopini**.
- Nesylaeus* Heider, 1935:2245, unjustified emendation of *Nesylaeus* Bridwell, 1919. **Hylaeinae**.
- Nesocolletes* Michener, 1965a:52. Type species: *Lamprocolletes fulvescens* Smith, 1876, by original designation. [Leioproctus]. **Colletinae**.
- Nesocupetersia* Blüthgen, 1936:182. Type species: *Sphecodes scotti* Cockerell, 1912, by original designation. [Eupetersia]. **Halictini**.
- Nesohalictus* Crawford, 1910:120. Type species: *Halictus robbii* Crawford, 1910 = *Nomia halictoides* Smith, 1858, by original designation. [Halictus]. **Halictini**.
- Nesohylaeus* Ikudome, 1989:125. Type species: *Hylaeus niger* Bridwell, 1919, by original designation. [Hylaeus]. **Hylaeinae**.
- Nesomelecta* Michener, 1948b:15. Type species: *Melecta haitensis* Michener, 1948, by original designation. [Melecta]. **Melectini**.
- Nesomonia* Michener, Brooks, and Pauly, 1990:135. Type species: *Nomia flaviventris* Benoist, 1963, by original designation. [Uromonia]. **Meganomiinae**.
- Nesoprosopis* Perkins, 1899:75. Type species: *Prosopis facilis* Smith, 1879, by designation of Popov, 1939:168. **Hylaeinae**.
- Nesothrincostoma* Blüthgen, 1933:364. Type species: *Thrincostoma serricorne* Blüthgen, 1933, monobasic. **Halictini**.
- Nesylaeus* Bridwell, 1919:147. Type species: *Hylaeus nesoprosopoides* Bridwell, 1919, by original designation. [Hylaeus]. **Hylaeinae**.
- Nevadensis**bombus*** Skorikov, 1922b:149. Type species: *Bombus nevadensis* Cresson, 1874, by designation of Frison, 1927:64. **Bombini**.
- Nigranthidium* Pasteels, 1984:57, replacement for *Melanthidium* Pasteels, 1969. Type species: *Anthidium concolor* Friese, 1913, by original designation and autobasic. **Anthidiini**.
- Nigrocoelioxys* Gupta, 1993:235. Type species: *Coelioxys fuscipennis* Smith, 1854, by original designation. [Coelioxys]. **Megachilini**.
- Nihonia* Moure, 1964c:52. Type species: *Niltonia virgili* Moure, 1964, by original designation. **Colletinae**.
- Nitocris* Rafinesque, 1815:123, unjustified replacement for *Nomia* Latreille, 1804. Type species: *Andrena curvipes* Fabricius, 1781, autobasic. **Nomiinae**.
- Nivanthidium* Pasteels, 1969a:106. Type species: *Anthidium niveocinctum* Gerstaecker, 1857, by original designation. [Anthidium]. **Anthidiini**.
- Nobandrena* Warncke, 1968:45. Type species: *Andrena nobilis* Morawitz, 1874, by original designation. [Andrena]. **Andreninae**.
- Nobilibombus* Skorikov, 1933a:62. Invalid because no type species was designated [Code, 3rd ed., Art. 13(b)]. Bischoff, 1936:12, and Milliron, 1961:54, designated type species but placed *Nobilibombus* as a junior synonym of other names, and thus did not validate it (see Williams, 1991). **Bombini**.
- Nobilibombus* Richards, 1968:216, 222. Type species: *Bombus nobilis* Friese, 1904, by original designation. [Bombus]. **Bombini**.
- Nodocolletes* Rayment, 1931:164. Type species: *Nodocolletes dentatus* Rayment, 1931 = *Andrena chalybeata* Erichson, 1851, by original designation. Isotypic with *Lamprocolletes* by synonymy. **Colletinae**.
- Nodula* Ma, 1938:290. Type species: *Apis amethystina* Fabricius, 1793, by original designation. [Xylocopa]. **Xylocopini**.
- Nogueirapis* Moure, 1953b:247. Type species: *Trigona butteli* Friese, 1900, by original designation. [Partamona]. **Meliponini**.
- Nomada* Scopoli, 1770:44. Type species: *Apis ruficornis* Linnaeus, 1758, by designation of Curtis, 1832:pl. 419. *Apis fabriciana* Linnaeus, 1767, designated by Latreille, 1810:439, was not originally included. *Nomada succincta* Panzer, 1798, was designated as the type species by Blanchard, 1849:pl. 128 (1847) but was not originally included. **Nomadini**.
- Nomadita* Mocsáry, 1894:37. Type species: *Nomadita montana* Mocsáry, 1894, monobasic. **Nomadini**.
- Nomadopsis* Ashmead, 1898:285. Type species: *Perdita zonalis* Cresson, 1879, lapsus for *Calliopsis zonalis* Cresson, 1879, by original designation. Isotypic with *Claremontiella* by synonymy. **Panurginae**.
- Nomadosoma* Rohwer, 1911:24. Type species: *Pasites pilipes* Cresson, 1865, by original designation. **Nomadini**.
- Nomadula* Cockerell, 1903d:611. Type species: *Nomada americana* Kirby of Robertson, 1903d = *Nomada articulata* Smith, 1854, by original designation. See Code, ed. 3, Art. 70(c). [Nomada]. **Nomadini**.
- Nomia* Latreille, 1804:182. Type species: *Andrena curvipes* Fabricius, 1781, monobasic. *Nomia diversipes* "Fabr." actually Latreille, 1806, designated by Blanchard, 1849:pl. 125 (1847), was not originally included. **Nomiinae**.
- Nomiapis* Cockerell, 1919a:208. Type species: *Nomia diversipes* Latreille, 1806, by original designation. [Nomia]. **Nomiinae**.
- Nomiocolletes* Brèthes, 1909c:455. Type species: *Nomia joergensi* Friese, 1908, by original designation. **Colletinae**.
- Nomioides* Schenck, 1866:333. Type species: *Apis minutissima* Rossi, 1790, designated by the Commission, Opinion 1319 (1985). Misidentification of the type species as *Andrena pulchella* Jurine, 1807, by Schenck and associated nomenclatural problems are explained by Pesenko and Kerzhner (1981). **Nomioidinae**.
- Noonadania* Hirashima, 1978:68. Type species: *Palaeorhiza sculpturalis* Hirashima, 1978, by original designation. [Palaeorhiza]. **Hylaeinae**.
- Notandrena* Pérez, 1890:173. Type species: *Andrena nitidiuscula* Schenck, 1853, designated by Hedicke, 1933:216. [Andrena]. **Andreninae**.

- Notanthidium* Isensee, 1927:373. Type species: *Anthidium steloides* Spinola, 1851, by original designation. [Dianthidium]. **Anthidiini**.
- Noteopsis* Ikudome, 1991:791. Type species: *Hylaenus nanseiensis* Ikudome, 1989, by original designation. [Hylaenus]. **Hylaeinae**.
- Noteriades* Cockerell, 1931b:332. Type species: *Megachile tricarinata* Bingham, 1903, by original designation. [Heriades]. **Osmiini**.
- Nothosmia* Ashmead, 1899a:75. Type species: *Osmia distincta* Cresson, 1864, by original designation. **Osmiini**.
- Notylaeus* Bridwell, 1919:125, 126. Type species: *Prosopis heraldica* Smith, 1853, by original designation. **Hylaeinae**.
- Notocolletes* Cockerell, 1916b:44. Type species: *Notocolletes heterodoxus* Cockerell, 1916, monobasic. **Colletinae**.
- Notolonia* Popov, 1962:294. Type species: *Notolonia astragalii* Popov, 1962, by original designation. **Encerini**.
- Notomegilla* Brooks, 1988:511. Type species: *Anthophora aeruginosa* Smith, 1854, by original designation. [Amegilla]. **Anthophorini**.
- Notomelitta* Cockerell, 1933b:128. Type species: *Rediviva neliana* Cockerell, 1931, by original designation. **Melittinae**.
- Notoxaea* Hurd and Linsley, 1976:21. Type species: *Oxaea ferruginea* Friese, 1898, by original designation. **Oxaeinae**.
- Notoxylocopa* Hurd, 1956:2. Type species: *Xylocopa tabaniformis* Smith, 1854, by original designation. [Xylocopa]. **Xylocopini**.
- Nubenomia* Pauly, 1980:122. Type species: *Nomia nubecula* Smith, 1875, by original designation. [Nomia]. **Nomiinae**.
- Nyctomelitta* Cockerell, 1929e:303. Type species: *Bombus tranquebaricus* Fabricius, 1804, by original designation. [Xylocopa]. **Xylocopini**.
- Obertobombus* Reinig, 1930:107. Type species: *Bombus oberti* Morawitz, 1883, monobasic. [Bombus]. **Bombini**.
- Ochreriades* Mayromoustakis, 1956:226. Type species: *Eriades fasciatus* Friese, 1899, by original designation. **Osmiini**.
- Odontalictus* Robertson, 1918a:91. Type species: *Halictus ligatus* Say, 1837, by original designation. **Halictini**.
- Odontanthocopa* Tkalcú, 1974b:125. Type species: *Osmia bidentata* Morawitz, 1876, by original designation. [Anthocopa]. **Osmiini**.
- Odonterythrosmia* Tkalcú, 1974b:131. Type species: *Osmia fallax* Pérez, 1895, by original designation. [Anthocopa]. **Osmiini**.
- Odontobombus* Krüger, 1917:61. Type species: *Apis argillacea* Scopoli, 1763, by designation of Williams, 1994:339. A sectional name, to be treated as a subgenus according to the Code, 3rd ed., Art. 10(e). [Bombus]. Isotypic with *Megabombus* by synonymy. **Bombini**.
- Odontochlora* Schrottky, 1909a:141. Type species: *Augochlora mulleri* Cockerell, 1900, by original designation. **Augochlorini**.
- Odontopasites* Linsley, 1942:128. Type species: *Neopasites arizonicus* Linsley, 1942, by original designation. [Neopasites]. **Ammobatoidini**.
- Odontostelis* Cockerell, 1931d:542. Type species: *Stelis abnormis* Friese, 1925 = *Anthidium bivittatum* Cresson, 1878, by original designation. Isotypic with *Hoplostelis*. **Anthidiini**.
- Odontotrigona* Moure, 1961:213. Type species: *Trigona haematoptera* Cockerell, 1919, by original designation. **Meliponini**.
- Odyneropsis* Schrottky, 1902a:432. Type species: *Odyneropsis holosericea* Schrottky, 1902, by original designation. **Epeolini**.
- Oediscelis* Philippi, 1866:109. Type species: *Oediscelis vernalis* Philippi, 1866, by designation of Cockerell, 1919a:185. Toro and Moldenke (1979) erroneously list the type species as *O. plebeia* Philippi. **Xeromelissinae**.
- Oediscelisca* Moure, 1946c:243. Type species: *Oediscelis friesei* Ducke, 1907, by original designation. **Xeromelissinae**.
- Oestropsis* Smith, 1868a:253, not Brauer, 1868. Type species: *Oestropsis pubescens* Smith, 1868, monobasic. See *Gastropis*. **Stenotritidae**.
- Oligandrena* Lanham, 1949:207. Type species: *Andrena macrocephala* Cockerell, 1916, by original designation. [Andrena]. **Andreninae**.
- Oligeucera* Sitdikov and Pesenko, 1988:83. Type species: *Eucera popovi* Sitdikov, 1988, by original designation. [Eucera]. **Encerini**.
- Oligochlora* Engel, 1997:336. Type species: *Oligochlora eickworti* Engel, 1997, by original designation. **Fossil Augochlorini**.
- Oligotropus* Robertson, 1903a:168. Type species: *Oligotropus campanulae* Robertson, 1903, monobasic. **Megachilini**.
- Olmecanthidium* Peters, 1972:377. Type species: *Ulanthidium interdisciplinaris* Peters, 1972, by original designation. [Ulanthidium]. **Anthidiini**.
- Omachtes* Friese, 1909a:436, unjustified emendation of *Omachthes* Gerstaecker, 1869. **Ammobatini**.
- Omachthes* Gerstaecker, 1869:154. Type species: *Omachthes carnifex* Gerstaecker, 1869, designated by Sandhouse, 1943:580. **Ammobatini**.
- Onagrandrena* Linsley and MacSwain, 1956:111. Type species: *Andrena oenotherae* Timberlake, 1937, by original designation. [Andrena]. **Andreninae**.
- Opacula* Pesenko and Sitdikov, 1988:849. Type species: *Opacula donatica* Sitdikov, 1988, by original designation. **Eucerini**.
- Opandrena* Robertson, 1902a:187, 193. Type species: *Andrena cressonii* Robertson, 1871, by original designation. **Andreninae**.
- Oragapostemon* Cure, 1989:312. Type species: *Halictus divaricatus* Vachal, 1903, by original designation. **Halictini**.
- Orandrena* Warneke, 1968:36. Type species: *Andrena oralis* Morawitz, 1876, by original designation. [Andrena]. **Andreninae**.

- Oranthidium* Pasteels, 1969a:95. Type species: *Anthidium oraniense* Brauns, 1905 = *Anthidium folliculosum* Buysson, 1897, by original designation. **Anthidiini**.
- Orbitella* Ma, 1938:305, not Douville, 1915. Type species: *Xylocopa confusa* Pérez, 1901, by original designation. See *Maiella* and *Euryapis*. [Xylocopa]. **Xylocopini**.
- Oreomelissa* Hirashima and Tadauchi, 1975:176. Type species: *Andrena mitakensis* Hirashima, 1963, by original designation. [Andrena]. **Andreninae**.
- Oreopasites* Cockerell, 1906e:442. Type species: *Oreopasites scituli* Cockerell, 1906, monobasic. **Ammobatini**.
- Orfilana* Moure, 1954b:266. Type species: *Doeringiella variegata* Holmberg, 1886, by original designation. [Doeringiella]. **Epeolini**.
- Orientalibombus* Richards, 1929:378. Type species: *Bombus orientalis* Smith, 1854, by original designation. [Bombus]. **Bombini**.
- Orientallobombus* Kruseman, 1952:102, unjustified emendation of *Orientalibombus* Richards, 1929. [Bombus]. **Bombini**.
- Orientocoelioxys* Gupta, 1992:73. Type species: *Coelioxys quadrifasciatus* Gupta, 1992, by original designation. [Coelioxys]. **Megachilini**.
- Orientocressoniella* Gupta, 1993:165. Type species: *Megachile relata* Smith, 1879, by original designation. [Cressoniella]. **Megachilini**.
- Orientoheriades* Gupta, 1987:68. Type species: *Heriades orientalis* Gupta, 1987, by original designation. [Heriades]. **Osmiini**.
- Orientosmia* Peters, 1978b:332. Type species: *Osmia maxillaris* Morawitz, 1875, by original designation. [Osmia]. **Osmiini**.
- Orientotrichusa* Gupta, 1993:50. Type species: *Anthidium orientale* Bingham, 1897, by original designation. [Trachusa]. **Anthidiini**.
- Orphana* Vachal, 1909a:35, 38. Type species: *Orphana inquirenda* Vachal, 1909, monobasic. Isotypic with *Leptoglossa* and *Ptoleglossa* by synonymy. **Andreninae**.
- Orthanthidium* Mavromoustakis, 1953:837. Type species: *Anthidium formosanum* Friese, 1917, by original designation. [Paraanthidium]. **Anthidiini**.
- Osirinus* Roig-Alsina, 1989:17. Type species: *Osirinus lemniscatus* Roig-Alsina, 1989, by original designation. Isotypic with *Compsoclepta* by synonymy. **Osirini**.
- Osiris* Smith, 1854:288. Type species: *Osiris pallidus* Smith, 1854, by designation of Sandhouse, 1943:580. **Osirini**.
- Osmia* Panzer, 1806:230. Type species: *Apis bicornis* Linnaeus, 1758 = *Apis rufa* Linnaeus, 1758, by designation of Latreille, 1810:439. *Osmia tricornis* Latreille, 1811, designated by Blanchard, 1849:pl. 127 (1846), was not an originally included species. Isotypic with *Aniblys* and *Ceratosmia*; isotypic with *Pachyosmia* by synonymy. **Osmiini**.
- Othinosmia* Michener, 1943:86. Type species: *Thaumatosoma moniliferum* Cockerell, 1932, by original designation. [Anthocopa]. **Osmiini**.
- Oxaea* Klug, 1807a:261. Type species: *Oxaea flavesens* Klug, monobasic. The names *Oxaea* and *Dasyglossa* appear to have been published at approximately the same time in late 1807. *Dasyglossa* has not been used since, and in 1810 was discussed under the heading of *Oxaea* (Klug, 1810). Even if *Dasyglossa* has priority, it should not be resurrected. Isotypic with *Dasyglossa*. **Oxaeinae**.
- Oxyandrena* LaBerge, 1977:135. Type species: *Andrena longifovea* LaBerge, 1977, by original designation. [Andrena]. **Andreninae**.
- Oxyanthidium* Mavromoustakis, 1963a:653. Type species: *Anthidium aculeatum* Klug, 1832, by original designation. [Meganthidium]. **Anthidiini**.
- Oxybiastes* Mavromoustakis, 1954:260. Type species: *Oxybiastes bischoffi* Mavromoustakis, 1954, by original designation. **Epeolini**.
- Oxyhalictus* Cockerell and Ireland, 1935, in Cockerell, 1935b:91. Type species: *Halictus acutiferus* Cockerell and Ireland, 1935, monobasic. [Halictus]. **Halictini**.
- Oxynedys* Moure, 1946d:18, 27, 31, pl. 3, error for *Oxynedys* Schrottky, 1902. **Ericocidini**.
- Oxynedys* Schrottky, 1902a:491. Type species: *Oxynedys beroni* Schrottky, 1902 = *Mesocheira velutina* Lepetier and Serville, 1825, by original designation. Isotypic with *Hopliphora* by synonymy. **Ericocidini**.
- Oxystoglossa* Smith, 1853:83. Type species: *Oxystoglossa decorata* Smith, 1853, monobasic. **Augochlorini**.
- Oxystoglossella* Eickwort, 1969:422. Type species: *Augochlora cordiaeformis* Cockerell, 1907, by original designation. [Augochlora]. **Augochlorini**.
- Oxystoglossidia* Moure, 1943b:473. Type species: *Oxystoglossidia uraniella* Moure, 1943, by original designation. **Augochlorini**.
- Oxytrigona* Cockerell, 1917a:124. Type species: *Trigona flavoela mediorufa* Cockerell, 1913, by original designation. [Trigona]. **Meliponini**.
- Oxyxylocopa* Hurd and Moure, 1963:275. Type species: *Xylocopa varipes* Smith, 1854, by original designation. [Xylocopa]. **Xylocopini**.
- Ozbekosmia* Zanden, 1994:168. Type species: *Osmia avosetta* Warneke, 1988, by original designation. [Osmia]. **Osmiini**.
- Pachyanthidium* Friese, 1905a:66. Type species: *Anthidium bicolor* Lepeletier, 1841, by designation of Cockerell, 1920b:298. Also described as new by Friese, 1910b:158. [Anthidium]. **Anthidiini**.
- Pachyceble* Moure, 1940:54. Type species: *Pachyceble lanei* Moure, 1940, by original designation. **Halictini**.
- Pachycentris* Friese, 1902:186. Type species: *Pachycentris schrottkyi* Friese, 1902, monobasic. **Tapinotaspidini**.
- Pachycerapis* Cockerell, 1922d:4. Type species: *Exomalopsis cornigera* Cockerell, 1922, by original designation. [Exomalopsis]. **Exomalopsini**.

- Pachycolletes* Bischoff, 1954, in Stoeckhert, 1954:73. Type species: *Apis cunicularia* Linnaeus, 1761, by original designation. [Colletes]. **Colletinae**.
- Pachyhalictus* Cockerell, 1929d:589. Type species: *Halictus merescens* Cockerell, 1919, by original designation. [Halictus]. **Halictini**.
- Pachyhalonia* Moure and Michener, 1955b:281. Type species: *Dasyhalonia justi* Moure and Michener, 1955 = *Svastra sapucacensis* Cockerell, 1918, by original designation. [Dasyhalonia]. **Eucerini**.
- Pachymelopsis* Cockerell, 1905a:331. Type species: *Pachymelus conspicuus* Smith, 1879, by original designation. [Pachymelus]. **Anthophorini**.
- Pachymelus* Smith, 1879:116. Type species: *Pachymelus microlephas* Smith, 1879, by designation of Sandhouse, 1943:581. Sandhouse considered this species to be the type because the other species originally included had been removed to *Pachymelopsis*, but see Code, 3rd ed., Art. 69(b). Her conclusion is nonetheless accepted. **Anthophorini**.
- Pachynomada* Rodeck, 1945:180. Type species: *Nomada vincta* Say, 1837, by original designation. [Nomada]. **Nomadini**.
- Pachynomia* Pauly, 1980:124. Type species: *Nomia amoena* Gerstaecker, 1870, by original designation. [Nomia]. **Nomiinae**.
- Pachyodonta* Rayment, 1954:48. Type species: *Binghamiella fulvicornis* Rayment, 1954, monobasic. [Binghamiella]. **Colletinae**.
- Pachyosmia* Ducke, 1900:18. Type species: *Osmia rufa* Linnaeus, 1758, designated by Sandhouse, 1939:9. [Osmia]. Isotypic with *Osmia*, *Amblys*, and *Ceratosmia* by synonymy. **Osmiini**.
- Pachyprosopina* Michener, 1965a:108. Type species: *Euryglossa paupercula* Cockerell, 1915, by original designation. [Pachyprosopis]. **Euryglossinae**.
- Pachyprosopis* Perkins, 1908:29. Type species: *Pachyprosopis mirabilis* Perkins, 1908, monobasic. **Euryglossinae**.
- Pachyprosopula* Michener, 1965a:106. Type species: *Pachyprosopis kellyi* Cockerell, 1916, by original designation. [Pachyprosopis]. **Euryglossinae**.
- Pachysvastra* Moure and Michener, 1955b:284. Type species: *Tetralonia leucocephala* Bertoni and Schrottky, 1910, by original designation. **Eucerini**.
- Paedia* Dalla Torre, 1891:147, unjustified emendation of *Paidia* Radoszkowski, 1872. **Ammobatoidini**.
- Paidia* Radoszkowski, 1872b:10, not Herrich-Schaffer, 1847, unnecessary replacement for *Ammobatoides* Radoszkowski, 1868. Type species: *Phileremus abdominalis* Eversmann, 1852, autobasic. Isotypic with *Ammobatoides* Radoszkowski and *Phiarus*. **Ammobatoidini**.
- Palaeapis* Hong, 1984:37. Type species: *Palaeapis beiboziensis* Hong, 1984, monobasic. **Fossil wasp**, described in Apidae.
- Palaeorhiza* Perkins, 1908:29. Type species: *Prosopis peryridis* Cockerell, 1905, by original designation. **Hylaeinae**.
- Palinepeolus* Holmberg, 1909b:77. Type species: *Epeolus viperinus* Holmberg, 1886, by original designation. Isotypic with *Calospiloma*; isotypic with *Isepeolus* by synonymy. **Isepeolini**.
- Pallandrena* Warncke, 1968:39. Type species: *Andrena pallidicincta* Brullé, 1832, by original designation. [Andrena]. **Andreninae**.
- Pallhalictus* Warncke, 1975b:92. Type species: *Halictus pallens* Brullé, 1832, by original designation. [Halictus]. **Halictini**.
- Panomalopsis* Timberlake, 1980:82. Type species: *Exomalopsis linsleyi* Timberlake, 1980, by original designation. [Exomalopsis]. **Exomalopsini**.
- Panurginus* Nylander, 1848:223. Type species: *Panurginus niger* Nylander, 1848, monobasic. **Panurginae**.
- Panurgomia* Viereck, 1909:48. Type species: *Panurgomia fuchsii* Viereck, 1909, monobasic. **Dasypodinae**.
- Panurgus* Panzer, 1806:209. Type species: *Andrena lobata* Panzer, 1799 = *Apis calcarata* Scopoli, 1763, by designation of Latreille, 1810:439. Later and therefore invalid type designations were *Apis ursina* Gmelin, 1790, by Westwood, 1840a:85, and *Apis atra* Panzer, 1805 = *Apis banksiana* Kirby, 1802, by Blanchard, 1849:pl. 126 (1846). Isotypic with *Eriops* by synonymy. **Panurginae**.
- Papualictus* Michener, 1980:8. Type species: *Homalictus megalochilus* Michener, 1980 = *Halictus lorentzi* Friese, 1911, by original designation. [Homalictus]. **Halictini**.
- Papuanorhiza* Hirashima, 1996:80. Type species: *Xenorhiza krombeini* Hirashima, 1996, by original designation. [Xenorhiza]. **Hylaeinae**.
- Papuatrígona* Michener and Sakagami, 1990, in Michener, 1990:153. Type species: *Trigona genalis* Friese, 1908, by original designation. [Trigona]. **Meliponini**.
- Paraanthidiellum* Pasteels, 1969a:79, unnecessary emendation of *Paranthidiellum* Michener. [Pseudoanthidium]. **Anthidiini**.
- Paraanthidium* Friese, 1898a:101. Type species: *Apis interrupta* Fabricius, 1781, by designation of Cockerell, 1909b: 269. [Anthidium]. **Anthidiini**.
- Paracella* Pasteels, 1965:277, invalid because no type species was designated. [Megachile]. **Megachilini**.
- Paracella* Michener, new subgenus of *Megachile* for *Paracella* Pasteels, 1965:277. Type species: *Megachile semivenusta* Cockerell, 1931. This taxon was characterized by Pasteels, 1965:227. **Megachilini**.
- Paracentris* Cameron, 1903a:235. Type species: *Paracentris fulvohirta* Cameron, 1903, monobasic. **Centridini**.
- Parachalicodoma* Pasteels, 1966:13, not Tkalcú, 1969. Type species: *Megachile incana* Friese, by original designation. [Chalicodoma]. **Megachilini**.
- Parachalicodoma* Tkalcú, 1969b:363, not Pasteels, 1966. Type species: *Chalicodoma rufitarsis* Lepeletier, 1841, by original designation. See *Xenochalicodoma*. [Chalicodoma]. **Megachilini**.

- Paracoelioxys* Gribodo, 1884:274. Type species: *Coelioxys montandoni* Gribodo, 1884 = *Coelioxys alata* Förster, 1853, monobasic. [Coelioxys]. **Megachilini**.
- Paracoelioxys* Radoszkowski, 1893:53, not Gribodo, 1884. Type species: *Paracoelioxys barrei* Radoszkowski, 1893, by designation of Sandhouse, 1943:583. *Coelioxys decipiens* Spinola, 1838, designated by Alfken, 1938:433, was not an originally included species. See *Radoszkowskiana*. **Megachilini**.
- Paracolletes* Smith, 1853:6. Type species: *Paracolletes crassipes* Smith, 1853, monobasic. **Colletinae**.
- Paracrocisa* Alfken, 1937:173. Type species: *Paracrocisa sinaitica* Alfken, 1937, monobasic. **Melectini**.
- Paradialictus* Pauly, 1984c:691. Type species: *Paradialictus synavei* Pauly, 1984, by original designation. **Halictini**.
- Paradioxys* Moesáry, 1894:35. Type species: *Dioxys pannonica* Moesáry, 1877, monobasic. **Dioxyini**.
- Parafidelia* Brauns, 1926:202. Type species: *Parafidelia friesei* Brauns, 1926, monobasic. **Fidiellini**.
- Parafriesea* Schrottky, 1906b:118, replacement for *Friesea* Schrottky, 1902. Type species: *Friesea brasiliensis* Schrottky, 1902 = *Camptopoeum prinii* Holmberg, 1884, autobasic. **Panurginae**.
- Paragapostemon* Vachal, 1903:89. Type species: *Halictus podager* Vachal, 1903 = *Nomia coelestina* Westwood, 1875, by designation of Cockerell, 1905a:354 footnote. **Halictini**.
- Parahalictoides* Cockerell and Porter, 1899:420. Type species: *Halictoides campanulae* Cockerell, 1897, by original designation. [Halictoides]. **Rophitinae**.
- Parahesma* Michener, 1965a:92. Type species: *Euryglossa tuberculipes* Michener, 1965, by original designation. [Euryglossa]. **Euryglossinae**.
- Paraheterorhiza* Hirashima, 1980:104. Type species: *Palaeorhiza hilara* Cheesman, 1948, by original designation. [Palaeorhiza]. **Hylaeinae**.
- Paralictus* Robertson, 1901:229. Type species: *Halictus cephalicus* Robertson, 1892 (not Morawitz, 1873) = *Halictus cephalotes* Dalla Torre, 1896, by original designation. **Halictini**.
- Paramacropis* Popov and Guiglia, 1936:287. Type species: *Ctenoplectra ussuriana* Popov, 1936, monobasic. [Macropis]. **Melittinae**.
- Paramegachile* Friese, 1898b:198. Type species: *Apis argentata* Fabricius, 1793, by designation of Mitchell, 1934:298. [Megachile]. Isotypic with *Euricharaea*. **Megachilini**.
- Paramegalochila* Schulz, 1906:71, unjustified emendation of *Paramegachile* Friese, 1898. [Megachile]. **Megachilini**.
- Paramegilla* Friese, 1897a:18, 24. Type species: *Apis ireos* Pallas, 1773, designated by Sandhouse, 1943:584. [Podalirius]. **Anthophorini**.
- Parammobates* Friese, 1906e:118. Type species: *Parammobates brasiliensis* Friese, 1906, monobasic. **Epeolini**.
- Parammobatodes* Popov, 1931b:462. Type species: *Phiarus minutus* Mocsáry, 1878, by original designation. **Ammobatini**.
- Parandrena* Robertson, 1897:337. Type species: *Panurgus andrenoides* Cresson, 1878, by designation of Cockerell, 1897a:288. **Andreninae**.
- Parandrenella* Popov, 1958:112. Type species: *Andrena dentiventris* Morawitz, 1874, by original designation. [Andrena]. **Andreninae**.
- Paranomada* Linsley and Michener, 1937:82. Type species: *Paranomada nitida* Linsley and Michener, 1937, by original designation. **Brachynomadini**.
- Paranomia* Friese, 1897b:48, not Conrad, 1860. Type species: *Nomia chalybeata* Smith, 1875, by designation of Cockerell, 1910f:290. [Nomia]. See *Paranomina*. **Nomiinae**.
- Paranomina* Michener, 1944:251, not Hendel, 1907, replacement for *Paranomia* Friese, 1897. Type species: *Nomia chalybeata* Smith, 1875, by original designation and autobasic. Not replaced because subjective synonym of *Acunomia*. [Nomia]. **Nomiinae**.
- Paranomioides* Pesenko, 1983:175. Type species: *Nomioides steinbergi* Pesenko, 1983, by original designation. [Nomioides]. **Nomioidinae**.
- Paranthidiellum* Michener, 1948a:25. Type species: *Anthidium cibratrum* Morawitz, 1875, by original designation. **Anthidiini**.
- Paranthidium* Cockerell and Cockerell, 1901:50. Type species: *Anthidium perspicuum* Cockerell, 1898, by original designation. **Anthidiini**.
- Paranthocopa* Tkalcú, 1974b:132. Type species: *Osmia pinquis* Pérez, 1895, by original designation. [Anthocopa]. **Osmiini**.
- Paranychium* Toro and Herrera, 1980:213. Not valid because no type species was designated. [Callonychium]. See *Paranychium* Toro. **Panurginae**.
- Paranychium* Toro, 1989:231. Type species: *Camptopoeum chilense* Friese, 1906, by original designation. [Callonychium]. **Panurginae**.
- Parapachyprosopis* Exley, 1972:17. Type species: *Pachyprosopis angophorae* Cockerell, 1912, by original designation. [Pachyprosopis]. **Euryglossinae**.
- Parapartamona* Schwarz, 1948:428. Type species: *Trigona zonata* Smith, 1854, by original designation. [Trigona]. **Meliponini**.
- Parapolyglossa* Brauns, 1929:134. Type species: *Polyglossa heterodoxa* Cockerell, 1921, by designation of Sandhouse, 1943:584. Sandhouse recorded the type as by "original designation," but this was an error. [Polyglossa]. **Colletinae**.
- Paraprosopis* Popov, 1939:169, replacement for *Campanularia* Méhely. Type species: *Hylaeus pictipes* Nylander, 1852, by original designation. [Prosopis]. **Hylaeinae**.
- Parapsaenynthia* Friese, 1908b:42. Type species: *Psaenynthia argentina* Friese, 1908 = *Caenohalictus serripes* Ducke, 1908, monobasic. [Psaenynthia]. **Panurginae**.

- Pararhophites* Friese, 1898c:305. Type species: *Pararhophites quadratus* Friese, 1898, monobasic. Although he described *Pararhophites* as a subgenus of *Rhophites*, Friese described the species using *Pararhophites* as a genus. [Rophites]. **Pararhophitini.**
- Parasarus* Ruz, 1993, in Ruz and Rozen, 1993:2. Type species: *Parasarus atacamensis* Ruz, 1993, by original designation. **Panurginae.**
- Parasphecodes* Smith, 1853:39. Type species: *Parasphecodes hilactus* Smith, 1853, by designation of Sandhouse, 1943:585. **Halictini.**
- Paratetrapedia* Moure, 1941b:517. Type species: *Ancyloscelis lineata* Spinola, 1851, by original designation. **Tapinotaspidini.**
- Parathrincostoma* Blüthgen, 1933:389. Type species: *Parathrincostoma seyrigi* Blüthgen, 1933, by original designation. **Halictini.**
- Paratrigona* Schwarz, 1938:487. Type species: *Melipona prosopiformis* Gribodo, 1893, by original designation. [Trigona]. **Meliponini.**
- Paraugochlora* Schrottky, 1910:540. Type species: *Augochlora spinolae* Cockerell, 1900, by original designation. **Augochlorini.**
- Paraugochloropsis* Schrottky, 1906a:312. Type species: *Augochloropsis lycorias* Schrottky, 1906 = *Augochlora epipyrgitis* Holmberg, 1903, monobasic. [Augochloropsis]. **Augochlorini.**
- Paremisia* Moure, 1945c:406. Type species: *Centris lineolata* Lepeletier, 1841 = *Bombus similis* Fabricius, 1804, by original designation. **Centridini.**
- Parepeolus* Ducke, 1912:71, 102. Type species: *Leiopodus lecointei* Ducke, 1907 = *Epeolus aterrima* Friese, 1906, by designation of Sandhouse, 1943:585. **Osirini.**
- Parepicharis* Moure, 1945b:307. Type species: *Epicharis zonata* Smith, 1854, by original designation. **Centridini.**
- Pareucera* Tkaleč, 1978:164. Type species: *Eucera caspica* Morawitz, 1873, by original designation. [Eucera]. **Eucerini.**
- Parevaspis* Ritsema, 1874:lxii. Type species: *Parevaspis basalis* Ritsema, 1874, by designation of Sandhouse, 1943:585. **Anthidiini.**
- Pariotrigona* Moure, 1961:192. Type species: *Trigona pendleburyi* Schwarz, 1939, by original designation. **Meliponini.**
- Paroxystoglossa* Moure, 1940:59. Type species: *Oxystoglossa jocasta* Schrottky, 1910, by original designation. **Augochlorini.**
- Partamona* Schwarz, 1939b:23, replacement for *Patera* Schwarz, 1938. Type species: *Melipona testacea* Klug, 1807, autobasic and original designation. [Trigona]. **Meliponini.**
- Pasiphæ* Spinola, 1851:226, not Latreille, 1819. Type species: *Pasiphæ caerulescens* Spinola, 1851, designated by Sandhouse, 1943:585. See *Spinolapis*. **Colletinae.**
- Pasites* Jurine, 1807:224. Type species: *Pasites maculata* Jurine, 1807, by original designation. Subsequent designation: *Nomada schottii* Fabricius, 1804 = *Tiphia brevicornis* Panzer, 1798, by Latreille, 1810:439. **Ammobatini.**
- Pasitomachtes* Sandhouse, 1943:586, unjustified emendation of *Pasitomachthes* Bischoff, 1923. **Ammobatini.**
- Pasitomachthes* Bischoff, 1923:596. Type species: *Pasitomachthes nigerrimus* Bischoff, 1923, by original designation. Bischoff (1923) confusingly gave the type species as *nigerrimus* (without genus or author) after mentioning *Pasites nigerrimus* Friese, 1922. He included the latter among species of *Morgania*, however, and clearly intended *Pasitomachthes nigerrimus* Bischoff. **Ammobatini.**
- Patagiata* Blüthgen, 1949:77. Type species: *Prosopis difformis* Eversmann, 1852, by original designation. [Prosopis]. **Hylaeinae.**
- Patellapis* Friese, 1909a:148. Type species: *Halictus schultzei* Friese, 1909, by designation of Cockerell, 1920b:311. [Halictus]. **Halictini.**
- Patera* Schwarz, 1938:475, not Lesson, 1837. Type species: *Melipona testacea* Klug, 1807, by original designation. [Trigona]. See *Partamona*. **Meliponini.**
- Pauphalictus* Warneke, 1981:87. Type species: *Halictus pauperatus* Brullé, 1832, by original designation. [Halictus]. **Halictini.**
- Pavostelis* Sladen, 1916b:313. Type species: *Stelis montana* Cresson, 1864, monobasic. [Stelis]. **Anthidiini.**
- Pectinapis* LaBerge, 1970:322. Type species: *Pectinapis fasciata* LaBerge, 1970, by original designation. **Eucerini.**
- Pectinata* Méhely, 1935:54, 161. Invalid because no type species was designated. [Prosopis]. Sandhouse's (1943:586) view that Popov (1939:169) designated a type species and thus validated the name is incorrect. **Hylaeinae.**
- Pelandrena* Cockerell, 1909f:159. Type species: *Pelandrena reducta* Cockerell, 1909, monobasic. **Fossil.**
- Pelicandrena* LaBerge and Ribble, 1972:346. Type species: *Paramdrena atypica* Cockerell, 1941, by original designation. [Andrena]. **Andreninae.**
- Penapis* Michener, 1965b:324. Type species: *Penapis penai* Michener, 1965, by original designation. **Rophitinae.**
- Peniella* Toro and Ruz, 1972:146. Type species: *Camptopoeum maculatum* Spinola, 1851, by original designation. [Spinoliella]. **Panurginae.**
- Pentadentosmia* Warneke, 1991a:14. Type species: *Osmia quinquespinosa* Friese, 1899, by original designation. [Osmia]. **Osmiini.**
- Pentaperdita* Cockerell and Porter, 1899:414. Type species: *Perdita albovittata* Cockerell, 1895, monobasic. [Perdita]. **Panurginae.**
- Penteriades* Michener and Sokal, 1957:158. Type species: *Osmia remotula* Cockerell, by original designation. [Proteriades]. **Osmiini.**

- Penthemisia* Moure, 1950c:390. Type species: *Hemisia chilensis* Spinola, 1851, by original designation. [Centris]. **Centridini**.
- Peponapis* Robertson, 1902b:324. Type species: *Macrocerus pruinosa* Say, 1837, by original designation. **Eucerini**.
- Perdita* Smith, 1853:128. Type species: *Perdita halictoides* Smith, 1853, monobasic. Isotypic with *Zaperdita* by synonymy. **Panurginae**.
- Perditella* Cockerell, 1899b:312. Type species: *Perdita "laneae"* Cockerell, 1899, error for *P. larreae* Cockerell, 1896, by original designation. [Perdita]. **Panurginae**.
- Perditomorpha* Ashmead, 1899a:86. Type species: *Perditomorpha brunerii* Ashmead, 1899, monobasic. **Colletinae**.
- Perditopasites* Rozen, 1992:49. Type species: *Oreopasites linsleyi* Rozen, 1992, by original designation. [Oreopasites]. **Ammobatini**.
- Pereirapis* Moure, 1943b:461. Type species: *Pereirapis rhizophila* Moure, 1943, by original designation. **Augochlorini**.
- Perezia* Ferton, 1914:233, not Leger and Dubosc, 1909. Type species: *Perezia maura* Ferton, 1914 = *Megachile leachella* Curtis, 1828, monobasic. See *Fertonella*. **Megachilini**.
- Perissander* Michener, 1942:275. Type species: *Calliopsis anomoptera* Michener, 1942, by original designation. [Calliopsis]. **Panurginae**.
- Perixylocopa* Hurd and Moure, 1963:232. Type species: *Xylocopa erythrina* Gribodo, 1894, by original designation. [Xylocopa]. Isotypic with *Euxylocopa* by synonymy. **Xylocopini**.
- Petalosternon* Brooks, 1988:484. Type species: *Anthophora rivolleti* Pérez, 1895, by original designation. [Anthophora]. **Anthophorini**.
- Phaciapias* Michener, 1942:277. Type species: *Conanthalictus bakeri* Crawford, 1907, by original designation. [Conanthalictus]. **Rophitinae**.
- Phaenosarus* Mitchell, 1934:303, 309. Type species: *Megachile fortis* Cresson, 1872, by original designation. [Megachile]. **Megachilini**.
- Phaeosmia* Michener, 1943:77. Type species: *Osmia enceliae* Cockerell, 1935, by original designation. [Anthocopa]. **Osmiini**.
- Phanomalopsis* Michener and Moure, 1957:430. Type species: *Exomalopsis jenseni* Friese, 1908, by original designation. [Exomalopsis]. **Exomalopsini**.
- Pharohylaeus* Michener, 1965a:141. Type species: *Meroglossa lactifera* Cockerell, 1910, by original designation. **Hylaeinae**.
- Phelonomada* Snelling, 1986:24. Type species: *Nomada belfragei* Cresson, 1878, by original designation. [Nomada]. **Nomadini**.
- Phenacolletes* Cockerell, 1905b:301. Type species: *Phenacolletes mimus* Cockerell, 1905, monobasic. **Colletinae**.
- Phiarus* Gerstaecker, 1869:147. Type species: *Phileremulus vigilans* Cockerell, 1895, by original designation. **Neolarrini**.
- Phileremus* Latreille, 1809:169. Type species: *Epeolus punctatus* Fabricius, 1804, by designation of Latreille, 1810:439. *Phileremus oraniensis* Lepeletier, 1841, designated as type species by Blanchard, 1849:pl. 128 (1847) was not originally included. Isotypic with *Ammobatoides* Schenk by synonymy. **Ammobatini**.
- Philotraclusa* Pasteels, 1969a:22. Type species: *Anthidium aquifilum* Strand, 1912, by original designation. [Trachusa]. **Anthidiini**.
- Philoxanthus* Ashmead, 1898:285. Type species: *Perdita beata* Cockerell, 1895, by original designation. **Panurginae**.
- Phor* Robertson, 1903d:174, 175, 176. Type species: *Nomada integra* Robertson, 1893 (not Brullé, 1832) = *Nomada integriforma* Dalla Torre, 1896, by original designation. **Nomadini**.
- Phyllotoma* Duméril, 1860:842, not Leach, 1819. Type species: *Apis papaveris* Latreille, 1799, by designation of Michener, 1941:160. Not replaced because isotypic with *Anthocopa* and with *Furcosmia*. **Osmiini**.
- Physostetha* Michener, 1938a:523. Type species: *Heriades carinatum* Cresson, 1864, by original designation. [Heriades]. **Osmiini**.
- Pileteucera* Situdikov and Pesenko, 1988:87. Type species: *Eucera cineraria* Eversmann, 1852 = ?*E. cinerea* Lepeletier, 1841, by original designation. [Eucera]. **Eucerini**.
- Pithitis* Klug, 1807, in Illiger, 1807:198; Klug, 1807b:225. Type species: *Apis smaragdula* Fabricius, 1787, monobasic. The papers by Illiger and Klug were published simultaneously; Illiger credited the name *Pithitis* to Klug and it is customary and appropriate to do so. **Ceratinini**.
- Planiandrena* Osychnyuk 1983:794. Type species: *Andrena planirostris* Morawitz, 1876, by original designation. [Andrena]. **Andreninae**.
- Planihylaeus* Houston, 1981:96. Type species: *Prosopis trilobata* Cockerell, 1910, by original designation. [Hylaeus]. **Hylaeinae**.
- Plastandrena* Hedicke, 1933:217. Type species: *Melitta tibialis* Kirby, 1802, by original designation. [Andrena]. **Andreninae**.
- Platandrena* Viereck, 1924:21. Type species: *Andrena nasonii* Robertson, 1895, by original designation. [Andrena]. **Andreninae**.
- Platinopoda* Dalla Torre, 1896:202, lapsus for *Platynopoda* Westwood, 1840. **Xylocopini**.
- Platosmia* Warncke, 1990:482. Type species: *Osmia platalea* Warncke, 1990, by original designation. [Osmia]. **Osmiini**.
- Platychile* Michener, 1965a:205, nomen nudum. Type species: *Megachile foliata* Smith, 1861, monobasic. Error for *Callochile*. [Megachile]. **Megachilini**.
- Platyceroxyxys* Mitchell, 1973:120. Type species: *Coelioxys spatuliventer* Cockerell, 1927, by original designation. [Coelioxys]. **Megachilini**.

- Platyhalictus* Pesenko, 1984:347. Type species: *Halictus minor* Morawitz, 1876, by original designation. [Halictus]. **Halictini**.
- Platynopoda* Westwood, 1840b:271. Type species: *Apis latipes* Drury, 1773, by designation of Ashmead, 1899a:71. [Xylocopa]. Isotypic with *Audinetia*. **Xylocopini**.
- Platyspatulariella* Pittioni, 1950:80. Type species: *Prosopis punctata* Brullé, 1832, by original designation. [Prosopis]. **Hylaeinae**.
- Platysta* Pasteels, 1965:171. Type species: *Megachile platystoma* Pasteels, 1965, by original designation. [Megachile]. **Megachilini**.
- Platysvastra* Moure, 1967b:148. Type species: *Platysvastra macraspis* Moure, 1967, by original designation. **Eucerini**.
- Platytrigona* Moure, 1961:203. Type species: *Trigona planifrons* Smith, 1864, by original designation. **Meliponini**.
- Plebeia* Schwarz, 1938:480. Type species: *Trigona mosquito* Smith, 1863, by original designation. [Trigona]. **Meliponini**.
- Plebeiella* Moure, 1961:226. Type species: *Trigona lendliana* Friese, 1900, by original designation. **Meliponini**.
- Plebeina* Moure, 1961:228. Type species: *Melipona denoiti* Vachal, 1903, by original designation. **Meliponini**.
- Plesianthidium* Cameron, 1905:256. Type species: *Plesianthidium fulvopilosum* Cameron, 1905, by original designation. **Anthidiini**.
- Plesiopanurgus* Cameron, 1907:130. Type species: *Plesiopanurgus cinerarius* Cameron, 1907, monobasic. **Panurginae**.
- Plistotrichia* Morawitz, 1873a:134. Type species: *Nomia flavilabris* Lucas, 1846 = *Ancyla oraniensis* Lepeletier, 1841, monobasic. Isotypic with *Ancyla* by synonymy. **Ancylini**.
- Plusia* Hoffmannsegg 1817:52, not Hübner, 1806. Type species: *Plusia superba* Hoffmannsegg, 1817, monobasic. See *Euphusia*. **Euglossini**.
- Podalirius* Latreille, 1802a:430. Type species: *Apis pilipes* Fabricius, 1775 = *Apis plumipes* Pallas, 1772. Suppressed by Commission Opinion 151 (1944), Direction 4. See *Anthophora*. Isotypic with *Megilla* and *Anthophora*. **Anthophorini**.
- Podasys* Rafinesque, 1815:123, unjustified replacement for *Dasyopoda* Latreille, 1802. Type species: *Andrena hirtipes* Fabricius, 1793, autobasic. **Dasyopodinae**.
- Poecilandrena* Hedicke, 1933:218. Type species: *Andrena labiata* Fabricius, 1781, by original designation. [Andrena]. **Andreninae**.
- Poecilobombus* Dalla Torre, 1882:23. Type species: *Bombus sitkensis* Nylander, 1848, by designation of Sandhouse, 1943:589. [Bombus]. **Bombini**.
- Poecilocentris* Friese, 1900:244, 252. Type species: *Centris fasciatella* Friese, 1900, by designation of Sandhouse, 1943:589. [Centris]. **Centridini**.
- Poecilomelitta* Friese, 1913a:574 and 1913b:585. Type species: *Poecilomelitta flava* Friese, 1913, by designation of Sandhouse, 1943:589. *Poecilomelitta* was described as new twice. **Panurginae**.
- Poliandrena* Warncke, 1968:71. Type species: *Andrena polita* Smith, 1847, by original designation. [Andrena]. **Andreninae**.
- Policana* Friese, 1910a:651. Type species: *Colletes herbsti* Friese, 1910 = *Colletes albopilosus* Spinola, 1851, by designation of Sandhouse, 1943:589. **Diphaglossinae**.
- Polybiapis* Cockerell, 1916d:208. Type species: *Polybiapis mimus* Cockerell, 1916, by original designation. **Nomadini**.
- Polyglossa* Friese, 1909a:123. Type species: *Polyglossa capensis* Friese, 1909, by designation of Cockerell, 1921a:203. Sandhouse's (1943:589) subsequent designation of *P. albitaris* Friese, 1909, is invalid. **Colletinae**.
- Pomibombus* Skorikov, 1938a:145, unjustified emendation of *Pomobombus* Krüger, 1917. **Bombini**.
- Pomobombus* Krüger, 1917:65. Type species: *Bremus pomorum* Panzer, 1804, by designation of Sandhouse, 1943:589. [Bombus]. Isotypic with *Rhodobombus*. **Bombini**.
- Pontanthidium* Pasteels, 1969a:105. Type species: *Anthidium pontis* Cockerell, 1933, by original designation. [Anthidium]. **Anthidiini**.
- Popovapis* Michener, 1981:80. Type species: *Rhophites dispar* Morawitz, 1892, by original designation. [Eremaphanta]. **Dasypodinae**.
- Porterapis* Michener, 1989:678. Type species: *Lonchopria porteri* Ruiz, 1936, by original designation. [Lonchopria]. **Colletinae**.
- Pratibombus* Skorikov, 1937:59, unjustified emendation of *Pratobombus* Vogt, 1911. **Bombini**.
- Pratobombus* Vogt, 1911:49. Type species: *Apis pratorum* Linnaeus, 1761, by designation of Frison, 1927:67. [Bombus]. **Bombini**.
- Presbia* Sandhouse, 1943:590, nomen nudum. See Daly et al., 1987. **Manueliini**.
- Pressibombus* Frison, 1935:342. Type species: *Bremus pressus* Frison, 1935, by original designation. [Bremus]. **Bombini**.
- Prionohoplitis* Tkalcú, 1993a:55. Type species: *Osmia curvipes* Morawitz, 1871, by original designation. [Hoplitis]. **Osmiini**.
- Proanthidium* Friese, 1898a:101. Type species: *Anthidium oblongatum* Latreille, 1809 = *Anthophora oblongata* Illiger, 1806, by designation of Cockerell, 1909b:269. Pasteels (1969a) incorrectly listed *Anthidium undulatum* Dours as the type species of *Proanthidium*. [Anthidium]. **Anthidiini**.
- Probombus* Piton, 1940:218. Type species: *Probombus hirsutus* Piton, 1940, monobasic. **Fossil**.
- Prochelostoma* Robertson, 1903a:167. Type species: *Heriades philadelphi* Robertson, 1891, by original designation. **Osmiini**.
- Procockerellia* Timberlake, 1954:402. Type species: *Perdita albonotata* Timberlake, 1954, by original designation. [Perdita]. **Panurginae**.
- Prodasyhalonia* LaBerge, 1958:199. Type species: *Gaesischia mexicana* LaBerge, 1958, by original designation. [Gaesischia]. **Eucerini**.

- Prodi oxyxys* Friese, 1914a:221. Type species: *Prodi oxyxys cinnabarinus* Friese, 1914 = *Dioxyxys longiventris* Pérez, 1895, monobasic. **Dioxyini**.
- Prohalictus* Pesenko, 1984:346, not Armbruster, 1938. Type species: *Apis rubicunda* Christ, 1791, by original designation. [Halictus]. See *Protohalictus*. **Halictini**.
- Promelitta* Warncke, 1977:59. Type species: *Dufourea alboclypeata* Friese, 1900, by original designation. [Melitta]. **Dasypodinae**.
- Proplebeia* Michener, 1982:44. Type species: *Trigona dominicana* Wille and Chandler, 1964, by original designation. [Trigona]. **Fossil**. **Meliponini**.
- Prosamba* Michener, 1981:63. Type species: *Haplomelitta griseonigra* Michener, 1981, by original designation. [Haplomelitta]. **Dasypodinae**.
- Prosapis* Ashmead, 1894:43, unjustified emendation of *Prosopis* Fabricius, 1804. **Hylaeinae**.
- Prosopalictus* Strand, 1913b:26. Type species: *Prosopalictus micans* Strand, 1913 (not *Halictus micans* Strand, 1909, senior homonym in *Lasioglossum*) = *Lasioglossum micante* Michener, 1993, by original designation. **Halictini**.
- Prosopella* Snelling, 1966:139. Type species: *Hylaeus hurdi* Snelling, 1966, by original designation. [Hylaeus]. **Hylaeinae**.
- Prosopis* Jurine, 1801:164. Suppressed by Commission Opinion 135 (1939). **Hylaeinae**.
- Prosopis* Fabricius, 1804:293. Type species: *Mellinus bipunctatus* Fabricius, 1798 = *Sphex signata* Panzer, 1798, designated by Morice and Durrant, 1915:416. Isotypic with *Cingulata* by synonymy. **Hylaeinae**.
- Prosopisteroides* Hirashima, 1967:134. Type species: *Hylaeus heteroclitus* Hirashima, 1967, by original designation. [Hylaeus]. **Hylaeinae**.
- Prosopisteron* Cockerell, 1906b:17. Type species: *Prosopisteron serotinellum* Cockerell, 1906, monobasic. **Hylaeinae**.
- Prosopoides* Friese, 1908b:338 (reprint p. 10). Type species: *Oediscelis paradoxus* "Ducke" Friese, 1908 = *Oediscelis prosopoides* Ducke, 1907, monobasic. The name *Prosopoides* was published rather casually by Friese and attributed to Ducke. However, there was no description by Ducke and I agree with Sandhouse (1943) in attributing the name to Friese. **Xeromelissinae**.
- Prosopoxylöcopa* Hurd and Moure, 1963:215. Type species: *Xylöcopa mirabilis* Hurd and Moure, 1963, by original designation. [Xylöcopa]. **Xylocopini**.
- Protandrena* Cockerell, 1896:91. Type species: *Andrena maurula* Cockerell, 1896, by designation of Sandhouse, 1943:591. **Panurginae**.
- Protandrenopsis* Crawford, 1903:337. Type species: *Protandrenopsis fuscipennis* Crawford, 1903 = *Panurgus aethiops* Cresson, 1872, by original designation. Isotypic with *Pseudopanurgus* by synonymy. **Panurginae**.
- Protanthidium* Cockerell and Cockerell, 1901:49. Type species: *Megachile steloides* Bingham, 1896 (preoccupied in *Anthidium*; see Michener and Griswold, 1994a) = *Anthidium longicornis* Friese, 1902, by original designation. **Anthidiini**.
- Protepeolus* Linsley and Michener, 1937:75. Type species: *Protepeolus singularis* Linsley and Michener, 1937, by original designation. **Protepeolini**.
- Proteraner* Robertson, 1903b:103. Type species: *Sphecodes runculi* Robertson, 1897, monobasic. **Halictini**.
- Proteriades* Titus, 1904a:25. Type species: *Proteriades semirubra* Cockerell, 1898, monobasic. **Osmiini**.
- Protoanthidium* Cameron, 1902b:125. Type species: *Protoanthidium rufobalteatum* Cameron, 1902, by designation of Sandhouse, 1943:591. **Anthidiini**.
- Protobombus* Cockerell, 1908d:326; also described as new by Cockerell, 1909e:9. Type species: *Protobombus indecisus* Cockerell, 1908, monobasic; also designated by Cockerell, 1909e:10. **Fossil**.
- Protodiscelis* Brèthes, 1909a:245. Type species: *Protodiscelis siebrigii* Brèthes, 1909, monobasic. **Colletinae**.
- Protodufourea* Timberlake, 1955:105. Type species: *Protodufourea wasbaueri* Timberlake, 1955, by original designation. **Rophitinae**.
- Protohalictus* Pesenko, 1986b:631, replacement for *Prohalictus* Pesenko, 1984. Type species: *Apis rubicunda* Christ, 1791, autobasic. [Halictus]. **Halictini**.
- Protomelecta* Cockerell, 1908c:341. Type species: *Protomelecta brevipennis* Cockerell, 1908, monobasic. **Fossil**.
- Protomelissa* Friese, 1914c(June):322. Type species: *Protomelissa iridescentis* Friese, 1914(June) = *Tetralonia (?) hoozana* Strand, 1914(Apr.-May), by designation of Sandhouse, 1943:592. Lieftinck's (1983) contention that the type species is *Anthophora sauteri* Friese, 1911(May) = *Melecta formosana* Cockerell, 1911(Mar.), is not justified. Isotypic with *Tetralonioidella* by synonymy. **Melectini**.
- Protomeliturga* Ducke, 1912:63, 90. Type species: *Calliopsis turnerae* Ducke, 1907, monobasic. **Panurginae**.
- Protomorpha* Rayment, 1959b:334. Type species: *Protomorpha tarsalis* Rayment, 1959, by original designation. **Colletinae**.
- Protopithitis* Hirashima, 1969:651. Type species: *Ceratina aereola* Vachal, 1903, by original designation. [Pithitis]. **Ceratinini**.
- Protosiris* Roig-Alsina, 1989:20. Type species: *Osiris obtusus* Michener, 1954, by original designation. **Osirini**.
- Protosmia* Ducke, 1900:12. Type species: *Heriades glutinosus* Giraud, 1871, designation by Michener, 1943:86 and Sandhouse, 1943:592. [Osmia]. **Osmiini**.
- Protostelis* Friese, 1895:25. Type species: *Stelis freygessneri* Friese, 1885 = *Anthidium annulatum* Lepeletier, 1841, by designation of Popov, 1938:41. [Stelis]. **Anthidiini**.
- Protoxaea* Cockerell and Porter, 1899:410. Type species: *Megacilissa gloriosa* Fox, 1893, by original designation. **Oxaeinae**.
- Proxylocopa* Hedicke, 1938:192. Type species: *Xylocopa olivieri* Lepeletier, 1841, by original designation. [Xylocopa]. **Xylocopini**.

- Psaenythia* Gerstaecker, 1868:111. Type species: *Psaenythia philanthoides* Gerstaecker, 1868, by designation of Sandhouse, 1943:592. **Panurginae**.
- Psammandrena* LaBerge, 1977:83. Type species: *Andrena cercocarpi* Cockerell, 1936, by original designation. [Andrena]. **Andreninae**.
- Pseudagapostemon* Schrottky, 1909a:145. Type species: *Agapostemon arenarius* Schrottky, 1902, by original designation. **Halictini**.
- Pseudapis* W. F. Kirby, 1900:15. Type species: *Pseudapis anomala* W. F. Kirby, 1900, monobasic. **Nomiinae**.
- Pseudaugochlora* Michener, 1954:77. Type species: *Halictus nigromarginatus* Spinola, 1851 = *Megilla graminea* Fabricius, 1804, by original designation. [Caenaugochlora]. **Augochlorini**.
- Pseudaugochloropsis* Schrottky, 1906a:313. Type species: *Augochloropsis sthena* Schrottky, 1906, by designation of Sandhouse, 1943:593. *Halictus nigromarginatus* Spinola, designated as the type species by Moure, 1940:51, was not an originally included species; see Michener, 1995. [Augochloropsis]. **Augochlorini**.
- Pseudepeolus* Holmberg, 1886b:234, 284. Type species: *Pseudepeolus fasciatus* Holmberg, 1886, monobasic. **Epeolini**.
- Pseudeucera* Tkalcú, 1978:157, 158. Type species: *Eucera parvicornis* Moesáry, 1878, by original designation. **Eucerini**.
- Pseudhylaeus* Cockerell, 1929b:299. Type species: *Euryglossa albocuneata* Cockerell, 1913, by original designation. **Hylaeinae**.
- Pseudiscelis* Friese, 1906a:228. Type species: *Pseudiscelis rostrata* Friese, 1906, monobasic. The type species was described in this combination although the genus-group name was proposed as a subgenus of *Oediscelis*. [Oediscelis]. **Xeromelissinae**.
- Pseudoanthidium* Friese, 1898a:101. Type species: *Anthidium alpinum* Morawitz, 1873, designated by Sandhouse, 1943:593. [Anthidium]. **Anthidiini**.
- Pseudobranchiata* Méhely, 1935:33, 139. Invalid because no type species was designated. Sandhouse's (1943:593) view that Popov (1939) designated a type species and thus validated this name is incorrect. [Prosopis]. **Hylaeinae**.
- Pseudocentron* Mitchell, 1934:307. Type species: *Megachile pruina* Smith, 1853, by original designation. **Megachilini**.
- Pseudochilalictus* Michener, 1965a:170. Type species: *Lasioglossum imitator* Michener, 1965, by original designation. [Lasioglossum]. **Halictini**.
- Pseudocilissa* Radoszkowski, 1891:241. Type species: *Cilissa robusta* Radoszkowski, 1876 = *Melitta dimidiata* Morawitz, 1876, monobasic. **Melittinae**.
- Pseudocosmia* Radoszkowski, 1886:14, unjustified emendation of *Pseudosmia* Radoszkowski, 1872. **Osmiini**.
- Pseudodichroa* Bischoff, 1923:595. Type species: *Omachtes capensis* Friese, 1915, by designation of Sandhouse, 1943:593. **Ammobatini**.
- Pseudoheriades* Peters, 1970:153. Type species: *Eriades moricei* Friese, 1897, by original designation. **Osmiini**.
- Pseudoliphanthus* Ruz and Toro, 1983:253. Type species: *Liphanthus rozeni* Ruz and Toro, 1983, by original designation. [Liphanthus]. **Panurginae**.
- Pseudomacroteria* Timberlake, 1954:349. Type species: *Perdita turgiceps* Timberlake, 1954, by original designation. [Perdita]. **Panurginae**.
- Pseudomegachile* Friese, 1898b:198, no included species; Friese, 1899c:36, included species. Type species: *Megachile erivetorum* Lepeletier, 1841, designated by Alfken, 1933:56. [Megachile]. **Megachilini**.
- Pseudomegalochila* Schulz, 1906:71, unjustified emendation of *Pseudomegachile* Friese, 1898. [Megachile]. **Megachilini**.
- Pseudomelecta* Radoszkowski, 1865:55. Type species: *Melecta diacantha* Eversmann, 1852, by designation of Sandhouse, 1943:594. **Melectini**.
- Pseudo-osmia* Radoszkowski, 1874a:137, unjustified emendation of *Pseudosmia* Radoszkowski, 1872. **Osmiini**.
- Pseudoosmia* Radoszkowski, 1874b:152, unjustified emendation of *Pseudosmia* Radoszkowski, 1872. **Osmiini**.
- Pseudopanurgus* Cockerell, 1897a:290. Type species: *Panurgus aethiops* Cresson, 1872, by original designation. Isotypic with *Protandrenopsis* by synonymy. **Panurginae**.
- Pseudopasites* Bischoff, 1923:593. Type species: *Pasites pygmaeus* Friese, 1922, by designation of Sandhouse, 1943:594. [Sphecodopsis]. **Anomobatini**.
- Pseudopeolus* Ashmead, 1899a:80, unjustified emendation of *Pseudepeolus* Holmberg, 1886. **Epeolini**.
- Pseudophilanthus* Alfken, 1939:121. Type species: *Pseudophilanthus taeniatus* Alfken, 1939, monobasic. **Megonomiinae**.
- Pseudosarus* Ruz, 1980:25. Type species: *Pseudosarus virescens* Ruz, 1980, monobasic. **Panurginae**.
- Pseudosmia* Radoszkowski, 1872a:xviii, no included species; Radoszkowski, 1874b:152, included species. Type species: *Megachile cristata* Fonscolombe, 1846, not Dufour, 1841 = *Anthocopa cristatula* Zanden, 1990, by designation of Cockerell, 1922a:6. **Osmiini**.
- Pseudostelis* Popov, 1956:167. Type species: *Stelis strandi* Popov, 1935, by original designation. **Anthidiini**.
- Psilomelissodes* LaBerge, 1956:1173. Type species: *Melissodes intorta* Cresson, 1872, by original designation. [Melissodes]. **Eucerini**.
- Psilylaeus* Snelling, 1985:28. Type species: *Psilylaeus sagiops* Snelling, 1985 = *Prosopis perhumilis* Cockerell, 1914, by original designation. **Hylaeinae**.
- Psithyrus* Lepeletier, 1832:373. Type species: *Apis rupestris* Fabricius, 1793, by designation of Curtis, 1833:pl. 468. Isotypic with *Bremus* Kirby. **Bombini**.
- Pieneucera* Tkalcú, 1984c:72. Type species: *Eucera eucnemidea* Dours, 1873, by original designation. **Eucerini**.

- Pterandrena* Robertson, 1902a:187, 193. Type species: *Andrena pulchella* Robertson, 1891 (not Jurine, 1807) = *Andrena accepta* Viereck, 1916, by original designation. **Andreninae**.
- Pterosarus* Timberlake, 1967:10. Type species: *Calliopsis rudbeckiae* Robertson, 1895, by original designation. [Pseudopanurgus]. **Panurginae**.
- Ptilandrena* Robertson, 1902a:187, 192. Type species: *Andrena erigeniae* Robertson, 1891, by original designation. **Andreninae**.
- Ptilocentris* Snelling, 1984:22. Type species: *Centris festiva* Smith, 1854, by original designation. [Centris]. **Centridini**.
- Ptiloleptis* Michener, 1978b:315. Type species: *Ptiloleptis tomentosa* Michener, 1978, by original designation. **Halictini**.
- Ptiloglossa* Smith, 1853:7. Type species: *Ptiloglossa ducalis* Smith, 1853, monobasic. **Caupolicanini**.
- Ptiloglossidia* Moure, 1953a:73. Type species: *Ptiloglossidia fallax* Moure, 1953, by original designation. **Dissoglossitini**.
- Ptiloglossodes* Moure, 1945a:153. Type species: *Megacilissa tarsata* Friese, 1900, by original designation. [Ptiloglossa]. **Caupolicanini**.
- Ptilomelissa* Moure, 1943b:482. Type species: *Melissoptila bonaerensis* Holmberg, 1903, by original designation. **Eucerini**.
- Ptilonomia* Michener, 1965a:160. Type species: *Nomia plumosa* Michener, 1965, by original designation. [Nomia]. **Nomiinae**.
- Ptilopoda* Friese, 1921b:83. Type species: *Colletes maculipennis* Friese, 1921 = *Colletes spiloptera* Cockerell, 1917, monobasic. [Colletes]. **Colletinae**.
- Ptilosuroides* Mitchell, 1980:63. Type species: *Megachile neoxanthoptera* Cockerell, 1933, by original designation. [Cressoniella]. **Megaechilini**.
- Ptilosurus* Mitchell, 1943:667. Type species: *Megachile bertonii* Schrottky, 1908, by original designation. [Megachile]. **Megaechilini**.
- Ptilothrix* Smith, 1853:131. Type species: *Ptilothrix plumatus* Smith, 1853, monobasic. Isotypic with *Energoponus* by synonymy. **Emphorini**.
- Ptilothryx* Marschall, 1873:269, unjustified emendation of *Ptilothrix* Smith, 1853. **Emphorini**.
- Ptilotopus* Klug, 1810:32. Type species: *Ptilotopus americanus* Klug, 1810, monobasic. **Centridini**.
- Pilotrigona* Moure, 1951a:47. Type species: *Trigona heideri* Friese, 1900 = *Trigona lurida* Smith, 1854, by original designation. [Trigona]. **Meliponini**.
- Ptoleglossa* Friese, 1930:127, replacement for *Leptoglossa* Friese, 1925. Type species: *Leptoglossa paradoxa* Friese, 1925 = *Orphana inquirenda* Vachal, 1909, autobasic. Isotypic with *Leptoglossa* and by synonymy with *Orphana*. **Andreninae**.
- Puncthalictus* Warneke, 1975b:87. Type species: *Hylaeus punctatissimus* Schenck, 1853, by original designation. [Halictus]. **Halictini**.
- Puncticolletes* Noskiewicz, 1936:26, 490. Invalid because no type species was designated. Warneke (1978) considered *Puncticolletes* a synonym of *Rhinocolletes*. [Colletes]. **Colletinae**.
- Pycnanthidium* Krombein, 1951:292. Type species: *Pycnanthidium solomonis* Krombein, 1951, by original designation. **Anthidiini**.
- Pyganthophora* Brooks, 1988:460. Type species: *Apis retusa* Linnaeus, 1758, by original designation. [Anthophora]. **Anthophorini**.
- Pyghalictus* Warneke, 1975b:103. Type species: *Andrena pygmaea* Fabricius, 1804, by original designation. *Pyghalictus* was intended for the group of what is usually called *Lasioglossum politum* (Schenck). The identity of *Andrena pygmaea* Fabricius is in doubt (see Ebmer, 1988). [Halictus]. **Halictini**.
- Pyg纳thidiellum* Mayromoustakis, 1963b:492. Type species: *Anthidium zebra* Friese, 1904, by original designation. [Pyg纳thidium]. **Anthidiini**.
- Pyg纳thidium* Mayromoustakis, 1963b:491, unjustified emendation of *Pycnanthidium* Krombein, 1951. **Anthidiini**.
- Pygopasiphæ* Michener, 1989:647. Type species: *Leioproctus mourellus* Michener, 1989, by original designation. [Leioproctus]. **Colletinae**.
- Pygoperdita* Timberlake, 1956:275. Type species: *Perdita interrupta* Cresson, 1878, by original designation. [Perdita]. **Panurginae**.
- Pyrobombus* Dalla Torre, 1880:40. Type species: *Apis hypnorum* Linnaeus, 1758, monobasic. [Bombus]. Isotypic with *Anodontobombus*, *Uncobombus*, and *Hypnorobombus*. **Bombini**.
- Pyrosmia* Tkalcù, 1975b:182. Type species: *Osmia ferruginea* Latreille, 1811, by original designation. [Osmia]. **Osmiini**.
- Pyrrhobombus* Dalla Torre, 1882:28, unjustified emendation of *Pyrobombus* Dalla Torre, 1880. [Bombus]. **Bombini**.
- Pyrrhomelecta* Ashmead, 1899a:66. Type species: *Epeorus glabratulus* Cresson, 1878, by original designation. **Epeolini**.
- Quasihesma* Exley, 1968a:228. Type species: *Quasihesma moonbiensis* Exley, 1968, by original designation. **Euryglossinae**.
- Quasilictus* Walker, 1986:166. Type species: *Homalictus brevicornutus* Walker, 1986, by original designation. [Homalictus]. **Halictini**.
- Radoszkowskiana* Popov, 1955b:547, replacement for *Paracoelioxys* Radoszkowski, 1893. Type species: *Paracoelioxys barrei* Radoszkowski, 1893, autobasic and by original designation. **Megaechilini**.
- Ramalictus* Pesenko, 1984:347. Type species: *Halictus latifrons* Cameron, 1908, by original designation. [Halictus]. **Halictini**.
- Ramphorhina* Michener, 1939:8, lapsus for *Arogochila* Michener, 1939. [Ashmeadiella]. **Osmiini**.
- Ranthidiellum* Pasteels, 1969a:48. Type species: *Protoanthidium rufomaculatum* Cameron, 1902, by original designation. For aspects of this type designation, see Michener and Griswold, 1994a. [Anthidiellum]. **Anthidiini**.

- Rapanthidium* Michener, 1948a:11. Type species: *Anthidium vespooides* Friese, 1925, by original designation. [Paranthidium]. **Anthidiini**.
- Raphidostoma* Cockerell, 1936a:133. Type species: *Raphidostoma ceanothi* Cockerell, 1936 = *Chelomyia rubifloris* Cockerell, 1898, by original designation. Isotypic with *Chelostomopsis* by synonymy. **Osmiini**.
- Rathymus* Smith, 1854:278, not Dejean, 1831, unjustified emendation of *Rhathymus* Lepeletier and Serville, 1828. **Rhathymini**.
- Reanthidium* Pasteels, 1969a:87. Type species: *Anthidium reticulatum* Mocsáry, 1884, by original designation. **Anthidiini**.
- Rediviva* Friese, 1911a:671. Type species: *Andrena peringueyi* Friese, 1911, by designation of Cockerell, 1931a:402. [Andrena]. **Melittinae**.
- Redivivoides* Michener, 1981:42. Type species: *Redivivoides simulans* Michener, 1981, by original designation. **Melittinae**.
- Reedapis* Michener, 1989:656. Type species: *Leioproctus bathycyaneus* Toro, 1973, by original designation. [Leioproctus]. **Colletinae**.
- Reepenia* Friese, 1909b:205. Type species: *Nomia variabilis* Friese, 1909, by designation of Sandhouse, 1943:595. Michener, 1965a:159, and Commission Opinion 788 (1966). The name is not monobasic as indicated by Sandhouse (1943) and by the Official List of Generic Names of the International Commission on Zoological Nomenclature, since Friese cited additional species-group names as "varieties" of *variabilis*. [Nomia]. **Nomiinae**.
- Rhacandrena* LaBerge, 1977:90. Type species: *Andrena brevipalpis* Cockerell, 1930, by original designation. [Andrena]. **Andreninae**.
- Rhamphorhina* Michener and Sokal, 1957:159, unjustified emendation of *Ramphorhina* Michener, 1939, lapsus for *Arogochila* Michener, 1939. [Ashmeadiella]. **Osmiini**.
- Ranthidiellum* Pasteels, 1972:102, unjustified emendation of *Ranthidiellum* Pasteels, 1969. [Anthidiellum]. **Anthidiini**.
- Raphandrena* LaBerge, 1971b:507. Type species: *Andrena prima* Casad and Cockerell, 1896, by original designation. [Andrena]. **Andreninae**.
- Rhathymus* Lepeletier and Serville, 1828:448. Type species: *Rhathymus bicolor* Lepeletier and Serville, 1828, monobasic. Isotypic with *Colax*; isotypic with *Liogaster* by synonymy. **Rhathymini**.
- Rhectomia* Moure, 1947a:9. Type species: *Rhectomia pumilla* Moure, 1947, by original designation. **Augochlorini**.
- Rhinepeolus* Moure, 1955:115. Type species: *Epeolus rufiventris* Friese, 1908, by original designation. **Epeolini**.
- Rhineta* Illiger, 1807:198. Type species: *Nomada schottii* Fabricius, 1804 = *Tiphia brevicornis* Panzer, 1798, monobasic. Isotypic with *Biastes* by synonymy. **Biastini**.
- Rhinetula* Friese, 1922b:581. Type species: *Rhinetula denticrus* Friese, 1922, by designation of Sandhouse, 1943:596. **Halictini**.
- Rhinochaetula* Friese, 1912:185. Type species: *Capicola cinctiventris* Friese, 1912, by designation of Cockerell, 1915:343. **Dasypodinae**.
- Rhinocoelioxys* Mitchell, 1973:113. Type species: *Coelioxys zapoteca* Cresson, 1878, by original designation. [Coelioxys]. **Megachilini**.
- Rhinocolletes* Cockerell, 1910a:242. Type species: *Colletes nasutus* Smith, 1853, monobasic. [Colletes]. **Colletinae**.
- Rhinocorynura* Schrottky, 1909a:147. Type species: *Halictus inflaticeps* Ducke, 1906, by original designation. Isotypic with *Ctenocorynura* by synonymy. **Augochlorini**.
- Rhinomegilla* Brooks, 1988:482. Type species: *Anthophora megarrhina* Cockerell, 1910, by original designation. [Anthophora]. **Anthophorini**.
- Rhodanthidium* Isensee, 1927:374. Type species: *Anthidium siculum* Spinola, 1838, by original designation. [Anthidium]. **Anthidiini**.
- Rhodobombus* Dalla Torre, 1880:40. Type species: *Bremus pomorum* Panzer, 1804, by designation of Sandhouse, 1943:596. [Bombus]. Isotypic with *Pomobombus*. **Bombini**.
- Rhodocentris* Friese, 1900:244, 250. Type species: *Centris difformis* Smith, 1854, by designation of Sandhouse, 1943:596. [Centris]. Isotypic with *Heterocentris* and *Gundlachia* by synonymy. **Centridini**.
- Rhodohylaeus* Michener, 1965a:124. Type species: *Prosopis cenicera* Cockerell, 1910, by original designation. [Hylaeus]. **Hylaeinae**.
- Rhodomegachile* Michener, 1965a:201. Type species: *Megachile abdominalis* Smith, 1853, by original designation. [Chalicodoma]. **Megachilini**.
- Rhodosmia* Michener, 1943:85. Type species: *Osmia paradoxa* Friese, 1899, by original designation. [Anthocopa]. **Osmiini**.
- Rhoegepolus* Moure, 1955:117. Type species: *Rhoegepolus bigibbosus* Moure, 1955, by original designation. **Epeolini**.
- Rhopalictus* Sichel, 1867:146. Type species: *Corynura flavofasciata* Spinola, 1851 = *Halictus chilensis* Spinola, 1851, designated by Sandhouse, 1943:596. **Augochlorini**.
- Rhopalolemma* Roig-Alsina, 1991:33. Type species: *Rhopalolemma robertsi* Roig-Alsina, 1991, by original designation. **Biastini**.
- Rhopalomelissa* Alfken, 1926b:267. Type species: *Rhopalomelissa xanthogaster* Alfken, 1926, by designation of Sandhouse, 1943:596. **Nomiinae**.
- Rhophites* Agassiz, 1846:29 [Hymenoptera section], unjustified emendation of *Rophites* Spinola, 1808. **Rophitinae**.
- Rhophitoides* Schenck, 1861:69 (for the date see Michener, 1986a). Type species: *Rhophitoides distinguendus* Schenck, 1861 = *Rhophites cana* Eversmann, 1852, monobasic. **Rophitinae**.
- Rhophitulus* Ducke, 1907:366. Type species: *Rhophitulus frisei* Ducke, 1907, by designation of Sandhouse, 1943:597. Sandhouse corrected the spelling of the species name to *friesei* but since Ducke used *frisei* on pages 366 and 368, he must

- have intended that spelling although naming the species for H. Friese. **Panurginae**.
- Rhynchalictus* Moure, 1947a:5. Type species: *Rhynchalictus rostratus* Moure, 1947, by original designation. **Halictini**.
- Rhynchocolletes* Moure, 1943b:447. Type species: *Rhynchocolletes albicinctus* Moure, 1943, by original designation. **Colletinae**.
- Rhynostelis* Moure and Urban, 1994:297. Type species: *Anthidium multiplicatum* Smith, 1879, by original designation. **Anthidiini**.
- Rhysoxylocopta* Hurd and Moure, 1963:178. Type species: *Xylocopa cantabrita* Lepeletier, 1841, by original designation. [Xylocopa]. **Xylocopini**.
- Rhyssomegachile* Mitchell, 1980:63. Type species: *Megachile simillima* Smith, 1853, by original designation. [Cressoniella]. **Megachilini**.
- Rhyteucera* Sitzikov and Pesenko, 1988:87. Type species: *Eucera parvula* Friese, 1895, by original designation. [Eucera]. **Eucerini**.
- Rivalisia* Strand, 1921:270. Type species: *Rivalisia metallica* Strand, 1921 = *?Augochlora argentina* Friese, 1908, monobasic. **Augochlorini**.
- Robertsonella* Titus, 1904a:22. Type species: *Robertsonella gleasoni* Titus, 1904, by original designation. **Osmiini**.
- Robustobombus* Skorikov, 1922b:157. Type species: *Bombus robustus* Smith, 1854, by designation of Sandhouse, 1943:597. [*Alpigenobombus*]. **Bombini**.
- Rophites* Spinola, 1808:8, 72. Type species: *Rophites quinquespinosus* Spinola, 1808, monobasic. **Rophitinae**.
- Rostratilapis* Friese, 1914b:26. Type species: *Halictus macrognathus* Friese, 1914, by designation of Sandhouse, 1943:597. [*Halictus*]. **Halictini**.
- Rostrohalicus* Warncke, 1975b:88. Type species: *Halictus longirostris* Morawitz, 1876, by original designation. [*Halictus*]. **Halictini**.
- Roussyana* Manning, 1961:306. Type species: *Apis palmnickensis* Roussy, 1937, by original designation. [Electrapis]. **Fossil**.
- Royanthidium* Pasteels, 1969a:86. Type species: *Anthidium melanurum* Klug, 1832, by original designation. **Anthidiini**.
- Rubicundobombus* Skorikov, 1922b:154. Type species: *Bombus rubicundus* Smith, 1854, by designation of Sandhouse, 1943:597. [*Fervidobombus*]. **Bombini**.
- Ruderariobombus* Krüger, 1920:350. Type species: *Apis ruderaria* Müller, 1776, by designation of Yarrow, 1971:27. [*Bombus*]. **Bombini**.
- Rufandrena* Warncke, 1968:33. Type species: *Andrena rufiventris* Lepeletier, 1841, by original designation. [Andrena]. **Andreninae**.
- Rufipedibombus* Skorikov, 1922b:156. Type species: *Bombus rufipes* Lepeletier, 1836, monobasic. **Bombini**.
- Rufocinctobombus* Frison, 1927:78. Type species: *Bombus rufocinctus* Cresson, 1863, monobasic. [Bremus]. **Bombini**.
- Rugalictus* Pauly, 1980:121. Type species: *Halictus weenenicus* Cockerell, 1941 = *Halictus retigerus* Cockerell, 1940, by original designation. [Pachyhalictus]. Isotypic with *Dictyohalictus* by synonymy. **Halictini**.
- Ruginomia* Pauly, 1990:103. Type species: *Nomia rugiventris* Friese, 1930, by original designation. **Nomiinae**.
- Ruizanthesda* Moure, 1964b:265. Type species: *Halictus proximus* Spinola, 1851, by original designation. **Halictini**.
- Ruizanthesdella* Moure, 1964b:267. Type species: *Halictus mutabilis* Spinola, 1851, by original designation. [Ruizanthesda]. **Halictini**.
- Ruiziapis* Timberlake, 1953:598, emendation of *Ruiziapis* Timberlake, 1952. **Panurginae**.
- Ruiziella* Timberlake, 1952a:105 (April), not Cortes, 1952 (March). Type species: *Camptopoeum ochraceum* Friese, 1908, by original designation. See *Ruiziapis* and *Ruiziapis*. Isotypic with *Arhysosage* by synonymy. **Panurginae**.
- Ruiziapis* Timberlake, 1952b:528, error for *Ruiziapis* and replacement for *Ruiziella* Timberlake, 1952. **Panurginae**.
- Sabulicola* Verhoeff, 1890:328. Type species: *Sabulicola cirsii* Verhoeff, 1890 = *Nomada albilibris* Fabricius, 1793, monobasic. **Halictini**.
- Sakagamilla* Moure, 1989b:681. Type species: *Sakagamilla affabria* Moure, 1989, by original designation. **Meliponini**.
- Salemanthidium* Pasteels, 1969a:51. Type species: *Hypanthidium salemense* Cockerell, 1919, by original designation. [Eoanthidium]. **Anthidiini**.
- Samba* Friese, 1908a:568. Type species: *Samba calcarata* Friese, 1908, monobasic. **Dasypodinae**.
- Santiago* Urban, 1989:117. Type species: *Santiago mourei* Urban, 1989, by original designation. **Eucerini**.
- Saranthidium* Moure and Hurd, 1960:6. Type species: *Anthidium flavopictum* Smith, 1854, by original designation; incorrectly stated to be *Anthidium furcatum* Ducke, 1908, by Griswold and Michener, 1988:321. [Hypanthidium]. **Anthidiini**.
- Sarocolletes* Michener, 1989:643. Type species: *Lonchopria rufipennis* Cockerell, 1917, by original designation. [Leioproctus]. **Colletinae**.
- Sarogaster* Robertson, 1918a:92, replacement for *Gnathodon* Robertson, 1903. Type species: *Megachile georgica* Cresson, 1878, autobasic. **Megachilini**.
- Saropoda* Latreille, 1809:177, unnecessary replacement for *Helophilida* Klug, 1807. Type species: *Apis bimaculata* Panzer, 1798, autobasic. *Saropoda* was named with two included (but synonymous) species; it was also stated to be a replacement for *Helophilida* Klug. Sandhouse (1943) regarded the fixation as automatic (autobasic) since *Helophilida* is monobasic. *Apis rotundata* Panzer, 1798 = *A. bimaculata* Panzer, 1798, designated by Westwood, 1840a:86, was not originally included in *Helophilida*. **Anthophorini**.
- Sayapis* Titus, 1906:154, replacement for *Gnathocera* Provancher, 1882, and *Ceratias* Robertson, 1903. Type species: *Megachile pugnatus* Say, 1837, autobasic. **Megachilini**.

- Scaphandrena* Lanham, 1949:200. Type species: *Andrena montrosensis* Viereck and Cockerell, 1914, by original designation. [Andrena]. **Andreninae**.
- Scaptotrigona* Moure, 1942:315. Type species: *Trigona postica* Latreille, 1807, by original designation. [Trigona]. **Meliponini**.
- Saura* Schwarz, 1938:479. Type species: *Trigona latitarsis* Friese, 1900, by original designation. [Trigona]. **Meliponini**.
- Schizandrena* Hedicke, 1933:218. Type species: *Andrena aulica* Morawitz, 1876 = *Melitta bimaculata* Kirby, 1802, by original designation. [Andrena]. **Andreninae**.
- Schizocoelioxys* Mitchell, 1973:50. Type species: *Coelioxys funeraria* Smith, 1854, by original designation. The spelling *Schizococoelioxys* in the heading of Mitchell's description (p. 50) is corrected on the same page and elsewhere in the work. [Coelioxys]. **Megachilini**.
- Schizomegachile* Michener, 1965a:199. Type species: *Megachile monstrosa* Smith, 1868, by original designation. [Chalicodoma]. **Megachilini**.
- Schmiedeknechtia* Friese, 1896:277. Type species: *Schmiedeknechtia oraniensis* Friese, 1896, monobasic. **Ammobatoidini**.
- Schoenherria* Hurd and Moure, 1963:118, unjustified emendation of *Schonherria* Lepeletier, 1841. [Xylocopa]. **Xylocopini**.
- Schonherria* Lepeletier, 1841:207. Type species: *Xylocopa micans* Lepeletier, 1841, by designation of Sandhouse, 1943:598. [Xylocopa]. **Xylocopini**.
- Schrottka* Friese, 1908c:170, no included species. Type species: *Tetrapedia goeldiana* Friese, 1899, first included species, by Friese, 1908b:58. Isotypic with *Lanthanomelissa* by synonymy. **Tapinotaspidini**.
- Schrottkyapis* Mitchell, 1980:46. Type species: *Megachile assumptionis* Schrottky, 1908, by original designation. [Eumegachile]. **Megachilini**.
- Schwarziana* Moure, 1943a:147. Type species: *Melipona quadripunctata* Lepeletier, 1836, by original designation. [Trigona]. **Meliponini**.
- Schwarzula* Moure, 1946a:439. Type species: *Trigona timida* Silvestri, 1902, by original designation. **Meliponini**.
- Scirtetica* Holmberg, 1903:389, not Saussure, 1884. Type species: *Scirtetica antarctica* Holmberg, 1903, monobasic. See *Alloscirtetica*, *Holmbergiapis*, and *Neoscirtetica*. **Eucerini**.
- Scirteicops* Moure and Michener, 1955b:261. Type species: *Tetralonia gayi* Spinola, 1851, by original designation. [Alloscirtetica]. **Eucerini**.
- Scitandrena* Warncke, 1968:51. Type species: *Andrena scita* Eversmann, 1852, by original designation. [Andrena]. **Andreninae**.
- Scoliandrena* Lanham, 1949:223. Type species: *Andrena osmioides* Cockerell, 1916, by original designation. [Andrena]. **Andreninae**.
- Scrapter* Lepeletier and Serville, 1828:403, not *Scrapter* Lepeletier, 1841. Type species: *Scrapter bicolor* Lepeletier and Serville, 1828, by designation of Vachal, 1897:63. Ashmead's (1899a:84) subsequent designation of *Scrapter brullei* Lepeletier, 1841, as the type species of "Scrapter Lepel," concerns *Scrapter* Lepeletier, 1841 (= *Panurginus*), which was proposed as a new genus, with no reference to *Scrapter* Lepeletier and Serville, 1828. Cockerell's (1920a:254) subsequent designation of *Andrena lagopus* Latreille, 1809, as the type species of "Scrapter Lepeletier, 1825" is invalid. **Colletinae**.
- Scrapter* Lepeletier, 1841:260, not *Scrapter* Lepeletier and Serville, 1828. Type species: *Scrapter brullei* Lepeletier, 1841, by designation of Ashmead, 1899a:84. Not replaced because a synonym of *Panurginus*. **Panurginae**.
- Scapteroides* Gribodo, 1894:112. Type species: *Scapteroides difformis* Gribodo, 1894 = *Panurgus annulatus* Sichel, 1859, monobasic. **Panurginae**.
- Scapteropsis* Viereck, 1922:42. Type species: *Andrena fenningeri* Viereck, 1922, monobasic. [Andrena]. **Andreninae**.
- Seladonia* Robertson, 1918a:91. Type species: *Apis seladonia* Fabricius, 1794, by original designation. **Halictini**.
- Sellalictus* Pauly, 1980:120. Type species: *Halictus latesellatus* Cockerell, 1937, by original designation. [Lasioglossum]. **Halictini**.
- Semicarinella* Pasteels, 1984:32. Type species: *Pseudoanthidium latitarse* Pasteels, 1984, by original designation. [Pseudoanthidium]. **Anthidiini**.
- Senexibombus* Frison, 1930:3. Type species: *Bombylus senex* Vollenhoven, 1873, by original designation. [Bremus]. **Bombini**.
- Separatobombus* Frison, 1927:64. Type species: *Bombylus separatus* Cresson, 1863 = *Apis griseocollis* DeGeer, 1773, by original designation. [Bremus]. **Bombini**.
- Serapis* Smith, 1854:218, not Link, 1830. Type species: *Serapis denticulatus* Smith, 1854, monobasic. See *Serapista*. **Anthidiini**.
- Serapista* Cockerell, 1904a:357, replacement for *Serapis* Smith, 1854. Type species: *Serapis denticulatus* Smith, 1854, autobasic. **Anthidiini**.
- Sericogaster* Westwood, 1835:71. Type species: *Sericogaster fasciatus* Westwood, 1835, monobasic. Isotypic with *Holohesma* by synonymy. **Euryglossinae**.
- Sericohalictus* Pesenko, 1986a:137. Type species: *Halictus subopacus* Smith, 1853, by original designation. [Lasioglossum]. **Halictini**.
- Severanthidium* Pasteels, 1969a:106. Type species: *Anthidium severini* Vachal, 1903, by original designation. [Anthidium]. **Anthidiini**.
- Shornherria* Ashmead, 1899a:71, error for *Schonherria* Lepeletier, 1841. **Xylocopini**.
- Sibiricobombus* Skorikov, 1938a:145, unjustified emendation of *Sibiricobombus* Vogt, 1911. **Bombini**.

- Sibiricobombus* Vogt, 1911:60. Type species: *Apis sibirica* Fabricius, 1781, by designation of Sandhouse, 1943:599. [Bombus]. **Bombini**.
- Sigmatapis* Maa, 1953:556. Type species: *Apis cerana* Fabricius, 1793, by original designation. [Apis]. **Apini**.
- Simandrena* Pérez, 1890:174. Type species: *Andrena propinquua* Schenck, 1851 = *Melitta dorsata* Kirby, 1802, by designation of Hedicke, 1933:218. [Andrena]. **Andreninae**.
- Simanthesdon* Zavortink, 1975:232. Type species: *Simanthesdon linsleyi* Zavortink, 1975, by original designation. **Eucerini**.
- Simcolletes* Warncke, 1978:348. Type species: *Colletes similis* Schenck, 1853, by original designation. [Colletes]. **Colletinae**.
- Simioceratina* Daly and Moure, 1988, in Daly, 1988:42. Type species: *Ceratina moerenhouti* Vachal, 1903, by original designation. [Ctenoceratina]. **Ceratininae**.
- Simpanurgus* Warncke, 1972:67. Type species: *Panurgus phyllopodus* Warncke, 1972, by original designation. [Panurgus]. **Panurginae**.
- Sinomacropis* Michener, 1981:51. Type species: *Macropis hedini* Alflen, 1936, by original designation. [Macropis]. **Melittinae**.
- Smeathhalictus* Warncke, 1975b:88. Type species: *Melitta smeathmanella* Kirby, 1802, by original designation. [Halictus]. **Halictini**.
- Smithia* Vachal, 1897:63, not Milne-Edwards, 1851. Type species: *Scrapter carinata* Smith, 1862, by designation of Cockerell, 1910b:358. See *Melittosmithia*. **Euryglossinae**.
- Solamegilla* Marikovskaya, 1980:650. Type species: *Anthophora prshewalskyi* Morawitz, 1880, by original designation. **Anthophorini**.
- Solenopalpa* Pérez, 1897a:lxvii; also described as new by Pérez, 1897b:260. Type species: *Solenopalpa fertoni* Pérez, 1903 (not *Andrena fertoni* Pérez, 1895) = *Andrena solenopalpa* Benoist, 1945, monobasic. **Andreninae**.
- Sophrobombus* Cockerell, 1908d:326; also described as new by Cockerell, 1909g:21. Type species: *Sophrobombus fatalis* Cockerell, 1908, monobasic. **Fossil**.
- Soroensisibombus* Vogt, 1911:63. Type species: *Apis soroensis* Fabricius, 1776, monobasic. [Bombus]. Isotypic with *Kallobombus*. **Bombini**.
- Spatularia* Méhely, 1935:69, 175, not Van Deventer, 1904. Invalid because no type species was designated. [Prosopis]. See *Spatulariella*. **Hylaeinae**.
- Spatulariella* Popov, 1939:169, replacement for *Spatularia* Méhely, 1935. Type species: *Hylaeus hyalinatus* Smith, 1842, by original designation. [Prosopis]. **Hylaeinae**.
- Spatunomia* Pauly, 1980:121. Type species: *Nomia filifera* Cockerell, 1932, by original designation. [Nomia]. **Nomiinae**.
- Sphaerhylaeus* Cockerell, 1929a:217. Type species: *Gnathoprosopis globulifera* Cockerell, 1929, by original designation. [Gnathoprosopis]. **Hylaeinae**.
- Sphecodes* Latreille, 1804:182. Type species: *Nomada gibba* Fabricius, 1804 = *Sphex gibba* Linnaeus, 1758, monobasic. Isotypic with *Dichroa*. **Halictini**.
- Sphecodium* Robertson, 1903b:104. Type species: *Sphecodium cressonii* Robertson, 1903, by original designation. **Halictini**.
- Sphecodogastra* Ashmead, 1899a:92. Type species: *Sphecodes texana* Cresson, 1872, by original designation. **Halictini**.
- Sphecodopsis* Bischoff, 1923:593. Type species: *Omachthes capicola* Strand, 1911, by original designation. **Ammobatini**.
- Sphecodosoma* Crawford, 1907:182. Type species: *Sphecodosoma pratti* Crawford, 1907, by original designation. **Rophitinae**.
- Sphecogaster* Hirashima, 1978:72, not Lacordaire, 1869. Type species: *Palaeorhiza paradisea* Hirashima, 1978, by original designation. See *Eusphecogaster*. [Palaeorhiza]. **Hylaeinae**.
- Sphecocephala* Ashmead, 1899a:89, unjustified replacement for *Sphegocephala* Saussure, 1890. Type species: *Sphecocephala philanthoides* Saussure, 1890, autobasic. **Nomiinae**.
- Sphegocephala* Saussure, 1890:74. Type species: *Sphegocephala philanthoides* Saussure, 1890, monobasic. **Nomiinae**.
- Sphecodes* Mavromoustakis, 1949:553, unjustified emendation of *Sphecodes* Latreille, 1804. **Halictini**.
- Spinanthidium* Pasteels, 1969a:59. Type species: *Anthidium volkmanni* Friese, 1909, by original designation. [Spinanthidium]. **Anthidiini**.
- Spinanthidium* Mavromoustakis, 1951:977. Type species: *Anthidium trachusiforme* Friese, 1913, by original designation. [Dianthidium]. **Anthidiini**.
- Spinasternella* Gupta and Sharma, 1993, in Gupta, 1993:104. Type species: *Spinasternella mervatus* Gupta and Sharma, 1993, by original designation. **Osmiini**.
- Spinolapis* Moure, 1951c:193, replacement for *Pasiphae* Spinola, 1851. Type species: *Pasiphae caerulescens* Spinola, 1851, by original designation and autobasic. **Colletinae**.
- Spinoliella* Ashmead, 1899a:84. Type species: *Camptopoeum nomiooides* [sic] Spinola = *Camptopoeum nomadooides* Spinola, 1851, by original designation. **Panurginae**.
- Spinopasites* Warncke, 1983:281. Type species: *Pasites spinotus* Warncke, 1983, by original designation. [Pasites]. **Ammobatini**.
- Steganomus* Ritsema, 1873:224. Type species: *Steganomus javanus* Ritsema, 1873, monobasic. **Nomiinae**.
- Stegocephala* Dalla Torre, 1896:176, unjustified emendation of *Sphegocephala* Saussure, 1890. **Nomiinae**.
- Stelidiella* Timberlake, 1941:133, lapsus for *Stelidina* Timberlake, 1941. [Stelis]. **Anthidiini**.
- Stelidina* Timberlake, 1941:131, Type species: *Stelis hemirhoda* Linsley, 1939, by original designation. [Stelis]. **Anthidiini**.
- Stelidium* Robertson, 1902b:323. Type species: *Stelidium trypetinum* Robertson, 1902, monobasic. The subsequent designation, Robertson, 1903b:104, of "S. cressonii" Robertson as the type species of "Stelidium" was a lapsus; the intention was to designate that species as the type of *Sphecodium*. **Anthidiini**.
- Stelidium* Robertson, 1903b:104, lapsus for *Sphecodium*; this is not *Stelidium* Robertson, 1902b. Type species: *Sphecodium cressonii* Robertson, 1903, by original designation. **Halictini**.

- Stelidomorpha* Morawitz, 1875:131. Type species: *Anthidium nasutum* Latreille, 1809, monobasic. **Anthidiini**.
- Stelis* Panzer, 1806:246. Type species: *Apis aterrima* Panzer, 1798, not Christ, 1791 = *Apis punctulatissima* Kirby, 1802, monobasic. Isotypic with *Trachusa* Jurine, *Gyrodroma* Klug, *Gymnus*, and *Ceraplastes*. **Anthidiini**.
- Stellenigris* Meunier, 1888:152. Type species: *Stellenigris vandeveldi* Meunier, monobasic. **Megachilini**.
- Stelodides* Moure, 1953c:123. Type species: *Megachile euzona* Pérez, 1899, by original designation. **Megachilini**.
- Stenandrena* Timberlake, 1949, in Lanham, 1949:213. Type species: *Pterandrena pallidifovea* Viereck, 1904, by original designation. [Andrena]. **Andreninae**.
- Stenanthidiellum* Pasteels, 1968a:1059. Also described as new by Pasteels, 1969a:53. Type species: *Anthidium sibiricum* Eversmann, 1852, by original designation. [Banthanthidium]. **Anthidiini**.
- Stenanthonidium* Moure, 1947a:16. Type species: *Anthidium espinosai* Ruiz, 1938, by original designation. **Anthidiini**.
- Stenocolletes* Schrottky, 1909c:253. Type species: *Stenocolletes pictus* Schrottky, 1909, monobasic. **Panurginae?**
- Stenoediscelis* Toro and Moldenke, 1979:135. Type species: *Oediscelis inermis* Friese, 1908, by original designation. **Xeromalissinae**.
- Stenoheriades* Tkalcú, 1984a:1. Type species: *Pseudoheriades hofferi* Tkalcú, 1984, by original designation. [Pseudoheriades]. **Osmiini**.
- Stenohesma* Michener, 1965a:99. Type species: *Stenohesma nomadiformis* Michener, 1965, by original designation. **Euryglossinae**.
- Stenomegachile* Pasteels, 1965:507. Type species: *Megachile chelostomoides* Gribodo, 1894, by original designation. [Chalicodoma]. **Megachilini**.
- Stenomelissa* Hirashima and LaBerge, 1965, in Hirashima, 1965b:500. Type species: *Andrena halictoides* Smith, 1869, by original designation. [Andrena]. **Andreninae**.
- Stenosmia* Michener, 1941:165. Type species: *Osmia flavigornis* Morawitz, 1878, by original designation. **Osmiini**.
- Stenothisa* Moure, 1954b:277. Type species: *Doeringiella angustata* Moure, 1954, by original designation. [Doeringiella]. **Epeolini**.
- Stenotritus* Smith, 1853:119. Type species: *Stenotritus elegans* Smith, 1853, monobasic. **Stenotritidae**.
- Stenoxylocopa* Hurd and Moure, 1960:809. Type species: *Xylocopa artifex* Smith, 1874, by original designation. [Xylocopa]. **Xylocopini**.
- Stictonomia* Cameron, 1905:192. Type species: *Stictonomia punctata* Cameron, 1905, monobasic. **Nomiinae**.
- Stilbeucera* Tkalcú, 1978:162. Type species: *Eucera clypeata* Erichson, 1835, by original designation. [Eucera]. **Eucerini**.
- Stilbomalopsis* Silveira, 1995:450. Type species: *Exomalopsis solani* Cockerell, 1896, by original designation. [Exomalopsis]. **Exomalopsini**.
- Stilpnosoma* Smith, 1879:16. Type species: *Stilpnosoma laevigatum* Smith, 1879, monobasic. **Euryglossinae**.
- Strandiella* Friese, 1912:181. Type species: *Strandiella longula* Friese, 1912, by designation of Cockerell, 1916a:430. **Colletinae**.
- Suandrena* Warneke, 1968:52. Type species: *Andrena suerinensis* Friese, 1884, by original designation. [Andrena]. **Andreninae**.
- Subterraneibombus* Skorikov, 1938a:145, unjustified emendation of *Subterraneobombus* Vogt, 1911. **Bombini**.
- Subterraneobombus* Vogt, 1911:62. Type species: *Apis subterranea* Linnaeus, 1758, by designation of Frison, 1927:68. [Bombus]. **Bombini**.
- Sudila* Cameron, 1898:52. Type species: *Sudila bidentata* Cameron, 1898, by designation of Sandhouse, 1943:602. Isotypic with *Ceylonicola* by synonymy. **Halictini**.
- Sulcobombus* Krüger, 1917:65. Type species: *Bombus confusus* Schenck, 1859, designated by Sandhouse, 1943:502. This was a sectional name, but is treated as a subgeneric name in view of the Code, 3rd ed., art 10(e). [Bombus]. Isotypic with *Confusibombus* and *Confusobombus*. **Bombini**.
- Sundatrígona* Inoue and Sakagami, 1993:769, replacement for *Trigonella* Sakagami and Moure, 1975. Type species: *Trigona moorei* Schwarz, 1937, by original designation and autobasic. [Trigona]. **Meliponini**.
- Svastra* Holmberg, 1884:127. Type species: *Svastra bombilans* Holmberg, 1884, by designation of Sandhouse, 1943:602. **Eucerini**.
- Svastrides* Michener, LaBerge, and Moure, 1955:220. Type species: *Tetralonia melanura* Spinola, 1851, by original designation. **Eucerini**.
- Svastrina* Moure and Michener, 1955b:276. Type species: *Svastrina anaroliata* Moure and Michener, 1955 = *Svastra subapicalis* Brèthes, 1910, by original designation. **Eucerini**.
- Svastropsis* Moure and Michener, 1955b:291. Type species: *Tetralonia bipunctata* Friese, 1908, by original designation. [Martinapis]. **Eucerini**.
- Symmorphpha* Klug, 1807, in Illiger, 1807:198, nomen nudum. **Melectini**.
- Symmorphpha* Klug, 1807b:227. Type species: *Apis punctata* Fabricius, 1775 = *Apis albifrons* Forster, 1771, monobasic. Isotypic with *Melecta*. **Melectini**.
- Synalonia* Robertson, 1905:365, unjustified emendation of *Synhalonia* Patton, 1879. **Eucerini**.
- Synapis* Cockerell, 1907a:229. Type species: *Apis henshawi* Cockerell, 1907, monobasic. [Apis]. **Fossil. Apini**.
- Synepeolus* Cockerell, 1921b:6. Type species: *Triepeolus insolitus* Cockerell, 1921, monobasic. [Triepeolus]. **Epeolini**.
- Synhalonia* Patton, 1879a:473. Type species: *Melissodes fulvitarsis* Cresson, 1878, by original designation. **Eucerini**.
- Synocoelioxys* Mitchell, 1973:57. Type species: *Coelioxys texana* Cresson, 1872, by original designation. [Coelioxys]. **Megachilini**.

- Syntrichalonia* LaBerge, 1957:10. Type species: *Melissodes exquisita* Cresson, 1878, by original designation. **Eucerini**.
- Systropha* Illiger, 1806:145. Type species: *Andrena spiralis* Olivier, 1789 = *Eucera curvicornis* Scopoli, 1770, monobasic. **Rophitinae**.
- Systrophidia* Cockerell, 1936b:477. Type species: *Systropha ogilviei* Cockerell, 1936, monobasic. [Systropha]. **Rophitinae**.
- Tachymelissodes* LaBerge, 1956:1170. Type species: *Melissodes dagosa* Cockerell, 1909, by original designation. [Melissodes]. **Eucerini**.
- Taeniandrena* Hedicke, 1933:219. Type species: *Melitta ovatula* Kirby, 1802, by original designation. [Andrena]. **Andreninae**.
- Tanguticobombus* Pittioni, 1939:201. Type species: *Bombus tanguticus* Morawitz, 1886, by original designation. [Bombus]. **Bombini**.
- Tapinorrhina* Michener and Moure, 1957:421. Type species: *Exomalopsis caerulea* Friese, 1906, by original designation. [Tapinotaspis]. **Tapinotaspidiini**.
- Tapinorrhina* Moure, 1994a:274, unjustified emendation of *Tapinorrhina* Michener and Moure, 1957. **Tapinotaspidiini**.
- Tapinotapsis* [sic] Holmberg, 1887b:225, nomen nudum. **Tapinotaspidiini**.
- Tapinotaspis* Holmberg, 1903:413. Type species: *Tapinotaspis chacabucensis* Holmberg, 1903 = *Exomalopsis chalybaea* Friese, 1899, by designation of Sandhouse, 1943:603. **Tapinotaspidiini**.
- Tapinotaspoides* Moure, 1944b:10. Type species: *Tetrapedia serraticornis* Friese, 1899, by original designation. **Tapinotaspidiini**.
- Tarsalia* Morawitz, 1895:9. Type species: *Tarsalia hirtipes* Morawitz, 1895, monobasic. **Ancylini**.
- Tarsandrena* Osychnyuk, 1984a:24. Type species: *Andrena tarsata* Nylander, 1848, by original designation. [Andrena]. **Andreninae**.
- Teleutemnesta* Holmberg, 1887b:225, nomen nudum. **Emphorini**.
- Teleutemnesta* Holmberg, 1903:400. Type species: *Teleutemnesta fructifera* Holmberg, 1903, by designation of Cockerell, 1918b:36. **Emphorini**.
- Temnosoma* Smith, 1853:38. Type species: *Temnosoma metallicum* Smith, 1853, monobasic. **Augochlorini**.
- Temnosomula* Ogleblin, 1953:2. Type species: *Temnosoma platensis* Ogleblin, 1953 = *Micraugochlora spherocephala* Schrottky, 1909, by original designation. [Temnosoma]. Isotypic with *Micraugochlora* by synonymy. **Augochlorini**.
- Teratognatha* Ogleblin, 1956:154. Type species: *Teratognatha modesta* Ogleblin, 1956, by original designation. **Exomalopsini**.
- Tergosmia* Warnecke, 1988a:390. Type species: *Osmia tergestensis* Ducke, 1897, by original designation. [Osmia]. **Osmiini**.
- Terrestribombus* Vogt, 1911:55. Type species: *Apis terrestris* Linnaeus, 1758, by designation of Frison, 1927:67. [Bombus]. Isotypic with *Brennus* Jurine, *Brennus* Panzer, *Bombus*, and *Leucobombus*. **Bombini**.
- Tetrachlora* Schrottky, 1909b:481. Type species: *Halictus multiplex* Vachal, 1903, monobasic. [Augochlora]. **Augochlorini**.
- Tetraglossula* Ogleblin, 1948:165. Type species: *Tetraglossula deltiwaga* Ogleblin, 1948, by original designation. **Colletinae**.
- Tetragona* Lepeletier and Serville, 1828:710. Type species: *Trigona elongata* Lepeletier and Serville, 1828 = *Centris clavipes* Fabricius, 1804, by original designation. [Trigona]. **Meliponini**.
- Tetragonilla* Moure, 1961:210. Type species: *Trigona atripes* Smith, 1857, by original designation. **Meliponini**.
- Tetragonisca* Moure, 1946a:438. Type species: *Trigona jaty* Smith, 1863 = *Trigona angustula* Latreille, 1811, by original designation. **Meliponini**.
- Tetragonula* Moure, 1961:206. Type species: *Trigona iridipennis* Smith, 1854, by original designation. **Meliponini**.
- Tetralonnia* Spinola, 1838:538, replacement for *Macrocerca* Latreille, 1810. Type species: *Eucera antennata* Fabricius, 1793 = *Apis malvae* Rossi, 1790, autobasic. See Michener, 1997. **Eucerini**.
- Tetraloniella* Ashmead, 1899a:61. Type species: *Macrocerca graja* Eversmann, 1852, by original designation. **Eucerini**.
- Tetralonioidella* Strand, 1914 (Apr.–May):140. Type species: *Tetralonia* (?) *hoozana* Strand, 1914, monobasic. Isotypic with *Protomelissa* by synonymy. **Melectini**.
- Tetranthidium* Moure, 1947a:15. Type species: *Anthidium latum* Schrottky, 1902, by original designation. **Anthidiini**.
- Tetrapaedia* Dalla Torre, 1896:299, unjustified emendation of *Tetrapedia* Klug, 1810. **Tetrapediini**.
- Tetrapedia* Klug, 1810:33. Type species: *Tetrapedia diversipes* Klug, 1810, monobasic. **Tetrapediini**.
- Tetrapedium* Berthold, 1827:468, unjustified emendation of *Tetrapedia* Klug, 1810. **Tetrapediini**.
- Tetraperdita* Cockerell and Porter, 1899:415. Type species: *Perdita sexmaculata* Cockerell, 1895, monobasic. [Perdita]. **Panurginae**.
- Tetrigona* Moure, 1961:215. Type species: *Trigona apicalis* Smith, 1857, by original designation. **Meliponini**.
- Thalestria* Smith, 1854:283. Type species: *Thalestria smaragdina* Smith, 1854 = *Euglossa spinosa* Fabricius, 1804, monobasic. **Epeolini**.
- Thaumatosoma* Smith, 1865:394. Type species: *Thaumatosoma duboultai* Smith, 1865, monobasic. **Megachilini**.
- Thectochlora* Moure, 1940:51. Type species: *Halictus alaris* Vachal, 1904, by original designation. **Augochlorini**.
- Thoracobombus* Dalla Torre, 1880:40. Type species: *Apis sylvarum* Linnaeus, 1761, by designation of Sandhouse, 1943:604. [Bombus]. Isotypic with *Adventoribombus*. **Bombini**.
- Thrausmus* Bulyssen, 1900:177. Type species: *Thrausmus grandidieri* Bulyssen, 1900, monobasic. **Halictrini**.

- Thrinchostoma* Saussure, 1890:52. Type species: *Thrinchostoma renitantly* Saussure, 1890, monobasic. **Halictini**.
- Thrincohalictus* Blüthgen, 1955:20. Type species: *Halictus prognathus* Pérez, 1912, by original designation. [Halictus]. **Halictini**.
- Thrincostoma* Dalla Torre, 1896:641, also Blüthgen, 1926, 1928b, 1930, unjustified emendation of *Thrinchostoma* Saussure, 1890. **Halictini**.
- Thygater* Holmberg, 1884:133. Type species: *Tetralonia terminata* Smith, 1854 = *Macrocera analis* Lepeletier, 1841, monobasic. **Eucerini**.
- Thygatina* Cockerell, 1911f:237. Type species: *Thygatina fumida* Cockerell, 1911, monobasic. **Eucerini**.
- Thyreothremma* Holmberg, 1903:391. Type species: *Thyreothremma rhopalocera* Holmberg, 1903 = *Melissoptila tandilensis* Holmberg, 1884, by designation of Sandhouse, 1943:604. Isotypic with *Thyreotremata*; isotypic with *Melissoptila* by synonymy. **Eucerini**.
- Thyreotremata* Holmberg, 1887b:225, nomen nudum. **Eucerini**.
- Thyreotremata* Sandhouse, 1943:604. Type species: *Thyreothremma rhopalocera* Holmberg, 1903 = *Melissoptila tandilensis* Holmberg, 1884, by designation of Moure and Michener, 1955b:305. Published as a junior synonym and therefore not available according to the Code, 3rd ed., Art. 11(e). See Moure and Michener, 1955b:305 footnote. Isotypic with *Thyreothremma*; isotypic with *Melissoptila* by synonymy. **Eucerini**.
- Thyreus* Panzer, 1806:263. Type species: *Nomada scutellaris* Fabricius, 1781, monobasic. Isotypic with *Crocissa*. **Melectini**.
- Thysandrena* Lanham, 1949:213. Type species: *Andrena candida* Smith, 1879, by original designation. [Andrena]. **Andreninae**.
- Titusella* Cockerell, 1906e:445. Type species: *Titusella pronitens* Cockerell, 1906, monobasic. **Osmiini**.
- Tmetocelia* Moure, 1943b:481. Type species: *Megalopta sulciventris* Friese, 1926, by original designation. **Augochlorini**.
- Toracolletes* Michener, 1989:651. Type species: *Lonchopria fazii* Herbst, 1923, by original designation. [Leioproctus]. **Colletinae**.
- Torrudapis* Pasteels, 1977:195. Type species: *Coelioxys torrida* Smith, 1854, by original designation. [Liothyrapis]. **Megachilini**.
- Townsendiella* Crawford, 1916:136, 138. Type species: *Townsendiella pulchra* Crawford, 1916, monobasic. **Townsendiellini**.
- Trachandrena* Robertson, 1902a:187, 189. Type species: *Andrena rugosa* Robertson, 1891, by original designation. **Andreninae**.
- Trachina* Klug, 1807b:226. Type species: *Centris longimana* Fabricius, 1804, by designation of Cockerell, 1906d:105. **Centridini**.
- Trachusa* Jurine, 1801:164, not Panzer, 1804. Type species: *Apis aterrima* Panzer, 1798, by designation of Morice and Durrant, 1915:426. Suppressed by Commission Opinion 135 (1939), Direction 4. Isotypic with *Stelis*, *Gyrodroma* Klug, *Gymnus*, and *Ceraplastes*. **Anthidiini**.
- Trachusa* Panzer, 1804b:expl. pl. 14-15. Type species: *Trachusa serratulae* Panzer, 1804 = *Apis byssina* Panzer, 1798, by designation of Sandhouse, 1943:605. Isotypic with *Megachileoides*; isotypic with *Diphysis* by synonymy. **Anthidiini**.
- Trachusoides* Michener and Griswold, 1994a:324. Type species: *Trachusoides simplex* Michener and Griswold, 1994, by original designation. **Anthidiini**.
- Trachusonimus* Popov, 1964:406. Type species: *Trachusa perdita* Cockerell, 1904, by original designation. **Anthidiini**.
- Trachyrhiza* Hirashima, 1980:100. Type species: *Palaeorhiza rugosa* Hirashima, 1980, by original designation. [Palaeorhiza]. **Hylaeinae**.
- Trianthidiellum* Pasteels, 1969a:58. Type species: *Hyanthidium sheppardi* Mavromoustakis, 1937, by original designation. **Anthidiini**.
- Trianthidium* Mavromoustakis, 1958:435. Type species: *Anthidium caturigense* Giraud, 1863, by original designation. [Rhodanthidium]. **Anthidiini**.
- Trichanthonidodes* Michener and Griswold, 1994a:319. Type species: *Pachyanthidium semiluteum* Pasteels, 1984, by original designation. [Pachyanthidium]. **Anthidiini**.
- Trichanthidium* Cockerell, 1930b:52. Type species: *Pachyanthidium occipitale* Cockerell, 1930 = *Anthidium benguelense* Vachal, 1903, monobasic. [Pachyanthidium]. **Anthidiini**.
- Trichanthidium* Moure, 1947a:20, not Cockerell, 1930. Type species: *Anthidium subpetiolatum* Schrottky, 1910, by original designation. See *Anthidium*. **Anthidiini**.
- Trichhostoma* Ashmead, 1899a:91, error for *Thrinchostoma* Saussure, 1890. **Halictini**.
- Trichinosmia* Sinha, 1958:244. Type species: *Osmia latisulcata* Michener, 1936, by original designation. [Osmia]. **Osmiini**.
- Trichocentris* Snelling, 1956:4. Type species: *Centris rhodoleuca* Cockerell, 1923 = *Centris caesalpiniae* var. *rhodopus* Cockerell, 1897, by original designation. **Centridini**.
- Trichocerapis* Cockerell, 1904b:292. Type species: *Tetralonia mirabilis* Smith, 1865, by original designation. **Eucerini**.
- Trichocolletes* Cockerell, 1912:176. Type species: *Lamprocolletes venustus* Smith, 1862, by original designation. **Colletinae**.
- Tricholiphanthus* Ruz and Toro, 1983:267. Type species: *Liphanthus leucostomus* Ruz and Toro, 1983, by original designation. [Liphanthus]. **Panurginae**.
- Trichonomada* Michener, 1996:90. Type species: *Trichonomada roigella* Michener, 1996, by original designation. **Braconomadini**.

- Trichopasites* Linsley, 1942:127. Type species: *Neopasites insoletus* Linsley, 1942, by original designation. [Neopasites]. **Ammobatoidini.**
- Trichorhopalomelissa* Wu, 1985:58. Type species: *Rhopalomelissa hainanensis* Wu, 1985, by original designation. [Rhopalomelissa]. **Nomiinae.**
- Trichostoma* Dalla Torre, 1896:381, also Friese, 1909a:150, unjustified emendation of *Thrinchostoma* Saussure, 1890. **Halictini.**
- Trichota* Méhely, 1935:63, 169. Invalid because no type species was designated. [Prosopis]. Sandhouse's (1943:606) view that Popov, 1939:169, designated a type species and thus validated the name is incorrect. **Hylaeinae.**
- Trichothurgus* Moure, 1949b:270. Type species: *Megachile dubia* Sichel, by original designation. *Trichothurgus* and *Lithurgomma* Moure were published simultaneously. Michener (1983), as first reviser, selected *Trichothurgus* as the generic name when they are considered synonymous. **Lithurgini.**
- Trichotosmia* Tkalečů, 1980:16. Type species: *Wainia consimilis* Tkalečů, 1980, by original designation. [Wainia]. **Osmiini.**
- Trichotrigona* Camargo and Moure, 1983:421. Type species: *Trichotrigona extranea* Camargo and Moure, 1983, by original designation. **Meliponini.**
- Trichurochile* Mitchell, 1980:63. Type species: *Megachile thygaterella* Schrottky, 1913, by original designation. [Cressoniella]. **Megachilini.**
- Tricornibombus* Skorikov, 1922b:151. Type species: *Bombus tricornis* Radoszkowsky, 1888, monobasic. [Agrobombus]. **Bombini.**
- Tridentosmia* Schmiedeknecht, 1885:21. Type species: *Osmia tridentata* Dufour and Perris, 1840, by designation of Michener, 1941:159. [Osmia]. **Osmiini.**
- Tripeolus* Robertson, 1901:231. Type species: *Epeolus concavus* Cresson, 1878, by original designation. Epeolini.
- Triepicharis* Moure, 1945b:304. Type species: *Epicharis analis* Lepeletier, 1841, by original designation. **Centridini.**
- Trigona* Jurine, 1807:245. Type species: *Apis amalthea* Olivier, 1789, by designation of Latreille, 1810:439. **Meliponini.**
- Trigonella* Sakagami and Moure, 1975, in Sakagami, 1975:57, not da Costa, 1778. Type species: *Trigona moorei* Schwarz, 1937, monobasic. See *Sundatrigona*. **Meliponini.**
- Trigonisca* Moure, 1950a:249. Type species: *Trigona duckei* Friese, 1900, by original designation. [Hypotrigona]. **Meliponini.**
- Trigonopedia* Moure, 1941b:518. Type species: *Trigonopedia oligotricha* Moure, 1941, by original designation. **Tapinotaspidini.**
- Trilia* Vachal, 1899:534. Type species: *Dufourea muoti* Vachal, 1899, monobasic. [Dufourea]. **Rophitini.**
- Trinchostoma* Sandhouse, 1943:606, incorrectly attributed to Sladen, 1915:214, unjustified emendation of *Thrinchostoma* Saussure, 1890. **Halictini.**
- Trinomia* Pauly, 1980:122. Type species: *Nomia tridentata* Smith, 1875, by original designation. [Nomia]. **Nomiinae.**
- Triopasites* Linsley, 1939b:8. Type species: *Triopasites timberlakei* Linsley, 1939, by original designation. **Brachynomadini.**
- Troandrena* Warneke, 1974:108, nomen nudum. [Andrena]. **Andreninae.**
- Troandrena* Warneke, 1975a:81. Type species: *Andrena troodica* Warneke, 1975, by original designation. [Andrena]. **Andreninae.**
- Tropandrena* Viereck, 1924:21. Type species: *Andrena fragilis* Smith, 1853, by original designation. [Andrena]. **Andreninae.**
- Trophocleptria* Holmberg, 1886b:233, 275. Type species: *Trophocleptria variolosa* Holmberg, 1886, monobasic. **Epeolini.**
- Tropicocoelioxys* Gupta, 1991:425. Type species: *Coelioxys genoconcaitus* Gupta, 1991, by original designation. [Coelioxys]. **Megachilini.**
- Tropidopedia* Michener and Moure, 1957:411. Type species: *Paratetrapedia seabrai* Michener and Moure, 1957, by original designation. [Paratetrapedia]. **Tapinotaspidini.**
- Tropirhopalomelissa* Wu, 1985:58. Type species: *Rhopalomelissa nigra* Wu, 1985, by original designation. [Rhopalomelissa]. **Nomiinae.**
- Truncandrena* Warneke, 1968:46. Type species: *Andrena truncatilabris* Morawitz, 1878, by original designation. [Andrena]. **Andreninae.**
- Trypetes* Schenck, 1861:32, 89. [For the date, see Michener, 1986a.] Type species: *Apis truncorum* Linnaeus, 1758, monobasic. Isotypic with *Heriades*. **Osmiini.**
- Tuberanthidium* Pasteels, 1969a:87. Type species: *Anthidium tuberculiferum* Brauns, 1905, by original designation. **Anthidiini.**
- Tumidihesma* Exley, 1996:253. Type species: *Tumidihesma tridentata* Exley, 1996, by original designation. **Eurylossinae.**
- Turkanthidium* Pasteels, 1969a:103. Type species: *Anthidium unicum* Morawitz, 1875, by original designation. [Anthidium]. **Anthidiini.**
- Turnerella* Cockerell, 1910c:262. Type species: *Turnerella gilberti* Cockerell, 1910, monobasic. **Eurylossinae.**
- Tylanidrena* LaBerge, 1964:312. Type species: *Cilissa erythrogaster* Ashmead, 1890, by original designation. [Andrena]. **Andreninae.**
- Tylanthidium* Urban, 1994a:277. Type species: *Tylanthidium tuberigaster* Urban, 1994, by original designation. **Anthidiini.**
- Tylomegachile* Moure, 1953c:120. Type species: *Megachile orba* Schrottky, 1913, by original designation. [Megachile]. **Megachilini.**
- Tytthalcicus* Pesenko, 1984:348. Type species: *Halictus maculatus* Smith, 1848, by original designation. [Halictus]. **Halictinae.**

- Ulandrena* Warncke, 1968:43. Type species: *Andrena schulzi* Strand, 1921, by original designation. [Andrena]. **Andreninae**.
- Ulanthidium* Michener, 1948a:13. Type species: *Ulanthidium mitchelli* Michener, 1948, by original designation. **Anthidiini**.
- Uncobombus* Krüger, 1917:65. Type species: *Apis hypnorum* Linnaeus, 1758, by designation of Williams, 1991:69. A sectional name, treated as a genus-group name in view of the Code, 3rd ed., Art. 10(e). Krüger attributed the name to Vogt but Krüger evidently wrote the text of the paper. [Bombus]. Isotypic with *Pyrohombus*, *Anodontobombus*, and *Hypnorobombus*. **Bombini**.
- Urocolletes* Michener, 1965a:58. Type species: *Leioproctus rhodurus* Michener, 1965, by original designation. [Leioproctus]. **Colletinae**.
- Urohalictus* Michener, 1980:16. Type species: *Urohalictus lieftincki* Michener, 1980, by original designation. **Halictini**.
- Uromonia* Michener, 1981:23. Type species: *Uromonia stagei* Michener, 1981, by original designation. **Meganomiinae**.
- Verbenapis* Cockerell and Atkins, 1902:44. Type species: *Calliopsis verbenae* Cockerell and Porter, 1899, monobasic. [Calliopsis]. **Panurginae**.
- Vestitohalictus* Blüthgen, 1961:287. Type species: *Halictus vestitus* Lepeletier, 1841, by original designation. [Halictus]. **Halictini**.
- Viereckella* Swenk, 1907:298. Type species: *Viereckella obscura* Swenk, 1907 = *Nomada pilosula* Cresson, 1878, by original designation. **Osirini**.
- Viridosmia* Warncke, 1988b:5. Type species: *Osmia saxicola* Ducke, 1899, by original designation. [Osmia]. **Osmiini**.
- Volucellobombus* Skorikov, 1922b:123, 149. Type species: *Bombus volucelloides* Gribodo, 1891, monobasic. **Bombini**.
- Wagenknechta* Moure, 1950c:389. Type species: *Centris cineraria* Smith, 1854, by original designation. [Centris]. **Centridini**.
- Wainia* Tkalců, 1980:1. Type species: *Wainia lonavlae* Tkalců, 1980, by original designation. **Osmiini**.
- Warnckeia* Pagliano and Scaramozzino, 1990:6, replacement for *Melanthidium* Pasteels, 1969. Type species: *Anthidium concolor* Friese, 1913, autobasic. **Anthidiini**.
- Willinkapis* Moure, 1953a:66. Type species: *Ptiloglossa chalybaea* Friese, 1906, by original designation. **Caupolicanini**.
- Xanthandrena* Lanham, 1949:218. Type species: *Andrena auricoma* Smith, 1879, by original designation. [Andrena]. **Andreninae**.
- Xanthemisia* Moure, 1945c:401. Type species: *Centris bicolor* Lepeletier, 1841, by original designation. **Centridini**.
- Xanthepecharis* Moure, 1945b:297. Type species: *Epicharis bicolor* Smith, 1854, by original designation. **Centridini**.
- Xanthesma* Michener, 1965a:97. Type species: *Euryglossa furcifera* Cockerell, 1913, by original designation. **Euryglossinae**.
- Xanthidium* Robertson, 1903d:174, 175, 177, not Ehrenberg, 1833. Type species: *Nomada luteola* Olivier, 1811, by original designation. This name is preoccupied but since it is a synonym of *Nomada*, it has not been replaced. **Nomadini**.
- Xanthoceratina* Vecht, 1952:39. Type species: *Ceratina cladura* Cockerell, 1919, by original designation. [Ceratina]. **Ceratinini**.
- Xanthocotelles* Toro and Cabezas, 1978:131. Type species: *Xanthocotelles adesiae* Toro and Cabezas, 1978, by original designation. **Colletinae**.
- Xanthopedia* Michener and Moure, 1957:411. Type species: *Paratetrapedia tricolor* Michener and Moure, 1957 = *Tetrapedia iheringii* Friese, 1899, by original designation. [Paratetrapedia]. **Tapinotaspidini**.
- Xanthosarus* Robertson, 1903a:168, 169, 172. Type species: *Megachile latimanus* Say, 1823, by original designation. Isotypic with *Delomegachile* by synonymy. **Megachilini**.
- Xanthosmia* Robertson, 1903a:166, 171. Type species: *Osmia cordata* Robertson, 1902, by original designation. **Osmiini**.
- Xenanthidium* Pasteels, 1984:33. Type species: *Xenanthidium biserratum* Pasteels (described as *biserrata*), 1984, by original designation. **Anthidiini**.
- Xenochalicodoma* Tkalců, 1971:34, replacement for *Parachalicodoma* Tkalců, 1969. Type species: *Chalicodoma rufitarsis* Lepeletier, autobasic. [Chalicodoma]. **Megachilini**.
- Xenochilicola* Toro and Moldenke, 1979:145. Type species: *Xenochilicola manigna* Toro and Moldenke, 1979, by original designation. **Xeromalissinae**.
- Xenoglossa* Smith, 1854:315. Type species: *Xenoglossa fulva* Smith, 1854, monobasic. **Eucerini**.
- Xenoglossodes* Ashmead, 1899a:63. Type species: *Melissodes albata* Cresson, 1872, by original designation. **Eucerini**.
- Xenohesma* Michener, 1965a:96. Type species: *Euryglossa flavicauda* Michener, 1965, by original designation. [Euryglossa]. **Euryglossinae**.
- Xenohylaeus* Michener, 1965a:136. Type species: *Hylaeus rieki* Michener, 1965, by original designation. [Hylaeus]. **Hylaeinae**.
- Xenoliphanthus* Ruz and Toro, 1983:260. Type species: *Psaenythia parvula* Friese, 1916, by original designation. [Liphanthus]. **Panurginae**.
- Xenomegachile* Rebmann, 1970:44. Type species: *Megachile albocincta* Radoszkowski, 1874, by original designation. [Megachile]. **Megachilini**.
- Xenopanurgus* Michener, 1952:24. Type species: *Xenopanurgus readioi* Michener, 1952, by original designation. **Panurginae**.
- Xenopeponapis* Hurd and Linsley, 1970:29. Type species: *Melissodes crassidentata* Cockerell, 1949, by original designation. [Peponapis]. **Eucerini**.
- Xenorhiza* Michener, 1965a:146. Type species: *Palaeorhiza hamada* Cheesman, 1948, by original designation. [Palaeorhiza]. **Hylaeinae**.

- Xenoxylocopa* Hurd and Moure, 1963:243. Type species: *Mesotrichia chiyakensis* Cockerell, 1908, by original designation. [Xylocopa]. **Xylocopini**.
- Xeralictoides* Stage, 1981, in Michener, 1981:99. Type species: *Hesperapis laticeps* Crawford, 1917, by original designation. **Dasypodinae**.
- Xeralictus* Cockerell, 1927a:41. Type species: *Xeralictus timberlakei* Cockerell, 1927, monobasic. **Rophitinae**.
- Xeranomobates* Popov, 1951:904. Type species: *Ammobates oxianus* Popov, 1951, by designation of the Commission, Opinion 1853 (1996). *Ammobates biastoides* Friese, 1895, designated as the type species by Popov, 1951, was misidentified (Baker, 1995b). [Ammobates]. **Ammobatini**.
- Xerocentris* Snelling, 1974:3. Type species: *Centris californica* Timberlake, 1940, by original designation. [Centris]. **Centridini**.
- Xeroctenoides* Mitchell, 1973:44. Type species: *Coelioxys edita* Cresson, 1872, by original designation. [Coelioxys]. **Megachilini**.
- Xeroheriades* Griswold, 1986:165. Type species: *Xeroheriades micheneri* Griswold, 1986, by original designation. **Osmiini**.
- Xeromacroterea* Timberlake, 1954:412. Type species: *Macroterea cephalotes* Cresson, 1878, by original designation. [Perdita]. **Panurginae**.
- Xeromegachile* Mitchell, 1934:302, 309. Type species: *Megachile integrata* Cresson, by original designation. [Megachile]. **Megachilini**.
- Xeromelecta* Linsley, 1939a:450. Type species: *Bombomelecta larvae* Cockerell, 1900, by original designation. [Melecta]. **Melectini**.
- Xeromelissa* Cockerell, 1926a:221. Type species: *Xeromelissa wilmattae* Cockerell, 1926, monobasic. **Xeromelissinae**.
- Xeropasites* Linsley, 1942:130. Type species: *Townsendiella rufiventris* Linsley, 1942, by original designation. [Townsendiella]. **Townsendiellini**.
- Xeropeponapis* Hurd and Linsley, 1970:28. Type species: *Peponapis timberlakei* Hurd and Linsley, 1964, by original designation. [Peponapis]. **Eucerini**.
- Xerophasma* Cockerell, 1923a:1. Type species: *Xerophasma bequaerti* Cockerell, 1923 = *Perdita bequaertiana* Cockerell, 1951, by original designation. **Panurginae**.
- Xerosmia* Michener, 1943:81. Type species: *Osmia xerophila* Cockerell, 1935, by original designation. [Anthocopa]. **Osmiini**.
- Xilocopa* Latreille, 1802a:432. Suppressed by Commission Opinion 743 (1965). See *Xylocopa*. **Xylocopini**.
- Xiphandrena* LaBerge, 1971b:504. Type species: *Andrena mendica* Mitchell, 1960, by original designation. [Andrena]. **Andreninae**.
- Xylocopa* Latreille, 1802b:379. Type species: *Apis violacea* Linnaeus, 1758, by designation of Westwood, 1840a:86. **Xylocopini**.
- Xylocopina* Hurd and Moure, 1963:160. Type species: *Xylocopa ruficollis* Hurd and Moure, 1963, by original designation. [Xylocopa]. **Xylocopini**.
- Xylocopoda* Hurd and Moure, 1963:105. Type species: *Xylocopa elegans* Hurd and Moure, 1963, by original designation. [Xylocopa]. **Xylocopini**.
- Xylocopoidea* Michener, 1954:155. Type species: *Apis virginica* Linnaeus, 1771, by original designation. [Xylocopa]. **Xylocopini**.
- Xylocopsis* Hurd and Moure, 1963:124. Type species: *Xylocopa funesta* Maidl, 1912, by original designation. [Xylocopa]. **Xylocopini**.
- Xylocospila* Hurd and Moure, 1963:109. Type species: *Xylocopa bambusae* Schrottky, 1902, by original designation. [Xylocopa]. **Xylocopini**.
- Xylomelissa* Hurd and Moure, 1963:219. Type species: *Xylocopa carinata* Smith, 1874 = *Xylocopa hottentotta* Smith, 1854, by original designation. [Xylocopa]. **Xylocopini**.
- Zacesta* Ashmead, 1899a:73. Type species: *Zacesta rufipes* Ashmead, 1899, monobasic. **Dasypodinae**.
- Zacosmia* Ashmead, 1898:282. Type species: *Melecta maculata* Cresson, 1879, by original designation. Isotypic with *Micromelecta*. **Melectini**.
- Zadontomerus* Ashmead, 1899a:69. Type species: *Ceratina tejonensis* Cresson, 1864, by original designation. **Ceratinini**.
- Zalygus* Cockerell, 1929b:321. Type species: *Zalygus cornutus* Cockerell, 1929, monobasic. **Euryglossinae**.
- Zadontomerus* Cockerell and Porter, 1899:406, unjustified emendation of *Zadontomerus* Ashmead, 1899. **Ceratinini**.
- Zaperdita* Robertson, 1918a:91. Type species: *Perdita maura* Cockerell, 1901 = *Perdita halictoides* Smith, 1853, by original designation. Isotypic with *Perdita* by synonymy. **Panurginae**.
- Zurhiopalea* Hirashima, 1982a:57. Type species: *Palaeorhiza paradoxa* Hirashima, 1975, by original designation. [Palaeorhiza]. **Hylaeinae**.
- Zebramegilla* Brooks, 1988:502. Type species: *Anthophora albigena* Lepeletier, 1841, by original designation. [Amegilla]. **Anthophorini**.
- Zikanapis* Moure, 1945a:147. Type species: *Ptiloglossa zikanii* Friese, 1925, by original designation. **Caupolicanini**.
- Zikaniella* Moure, 1941a:57. Type species: *Zikaniella crassiceps* Moure, 1941, by original designation. **Halictini**.
- Zonalictus* Michener, 1978a:513. Type species: *Halictus albofasciatus* Smith, 1879, by original designation. **Halictini**.
- Zonalonia* Moure and Michener, 1955b:250, 282. Type species: *Eucera cearensis* Ducke, 1910, by original designation. [Dasyhalonia]. **Eucerini**.
- Zonamegilla* Popov, 1950b:260. Type species: *Apis zonata* Linnaeus, 1758, by original designation. [Amegilla]. **Anthophorini**.
- Zonandrena* Hedicke, 1933:220. Type species: *Andrena flavipes* Panzer, 1799, by original designation. [Andrena]. **Andreninae**.

Zonohalonia Moure and Michener, 1955b:255, *lapsus* for *Zonalonia* Moure and Michener, 1955. [Dasyhalonia]. **Eucerini.**

Zomohirsuta Ma, 1938:300. Type species: *Xylocopa collaris* Lepeletier, 1841 (not *Apis collaris* Olivier, 1789) = *Xylocopa dejeanii* Lepeletier, 1841, by original designation. [Xylocopidae]. **Xylocopini.**

Zomolonia Moure and Michener, 1955b:280, *lapsus* for *Zonalonia* Moure and Michener, 1955; the latter spelling was selected

by Michener and Moure, 1956:284, and is in accordance with the Code, 3rd ed., Art. 32(e)(ii). [Dasyhalonia]. **Eucerini.**

Zonomegachile Mitchell, 1980:72. Type species: *Megachile mariannae* Dalla Torre, 1896, by original designation. [Chrysosarus]. **Megachilini.**

Zosteranthidium Michener and Griswold, 1994a:310. Type species: *Nigranthidium tergofasciatum* Pasteels, 1984, by original designation. [Afranthidium]. **Anthidiini.**

SUPPLEMENT TO THE LIST OF FAMILY-GROUP NAMES

The authorship and dating of family-group names of bees were dealt with by Michener (1986a). These names, being coordinate at all levels (subtribe to superfamily), are attributed to the same author and date regardless of the rank and termination of the word [Code, 3rd ed., Art. 36a; also see Art. 11(f)(ii)]. Thus the Megachilini, Megachilinae, and Megachilidae all have the same author and date.

Since 1986, a few errors and omissions have been discovered. Moreover, a few new family-group names have been published. Below is a list of the additions and corrections, in the style of the earlier work, i.e., each entry consisting of the name, author, reference, type genus, and stem.

The items in the list are numbered in accordance with the system in the earlier list (Michener, 1986a). Thus, Item 30.1 could reasonably go after Item 30 in the earlier list, and such items are additions to the 1986 list. Items 3, 18, 79, 91, 112, and 123 are corrections rather than additional family-group names. They result from discovery of older usages than those cited in 1986.

3. *Prosopiariae* Fallén, 1813:32. *Prosopis*; stem: *Prosopid*-. 18. See 3.
- 30.1. *Perditinae* Robertson, 1922:160. *Perdita*; stem: *Perdit*-.
- 30.2. *Calliopsinae* Robertson, 1922:160. *Calliopsis*; stem: *Calliops*-.
- 30.3. *Anthemurginae* Robertson, 1922:160. *Anthemurgus*; stem: *Anthemurg*-.
- 30.4. *Protomeliturgini* Ruz, 1991:215. *Protomeliturga*; stem: *Protomeliturg*-.
- 45.1. *Oxystoglossini* Schrottky, 1909b:482. *Oxystoglossa*; stem: *Oxystogloss*-. As pointed out to me by Michael S. Engel, this name has priority over Augochlorini. It has not been used since it was casually published in 1909. We will request that it be rejected by the Commission in the interest of stability of nomenclature.
79. *Exomalopses* Vachal, 1909b:7. *Exomalopsis*; stem: *Exomalops*-.
- 81.1. *Ancyloscelina* Roig-Alsina and Michener, 1993:159. *Ancyloscelis*; stem: *Ancyloscelid*-.

- 81.2. *Tapinotaspini* Roig-Alsina and Michener, 1993:159. *Tapinotaspis*; stem: *Tapinotaspid*-. The correct spelling is Tapinotaspidini. This tribal name was independently proposed by Moure, 1994b:306.
- 81.3. *Paratrapediini* Moure, 1994b:306. *Paratrapedia*; stem: *Paratraped*-.
- 81.4. *Teratognathini* Silveira, 1995:449. *Teratognatha*; stem: *Teratognath*-.
- 85.1. *Habropodini* Marikovskaya, 1976:688. *Habropoda*; stem: *Habropod*-.
91. *Melitomatae* Vachal, 1909b:7. *Melitoma*; stem: *Melitom*-. (See below.)
- 101.1. *Brachynomadini* Roig-Alsina and Michener, 1993:157. *Brachynomada*; stem: *Brachynomad*-.
- 104.1. *Hexepeolini* Roig-Alsina and Michener, 1993:157. *Hexepeolus*; stem: *Hexepeol*-.
112. *Neolarrini* Fox, 1894:302, 304. *Neolarra*; stem: *Neolarr*-.
- 119.9. *Eucondylopsinae* Friese, 1909a:99, 439. *Eucondylops*; stem: *Eucondylops*-.
- 120.1. *Manueliini* Sakagami and Michener, 1987:439. *Manuelia*; stem: *Manueli*-.
123. *Exaeretinae* Cockerell, 1908a:41. *Exaerete*; stem: *Exaeret*-.
- 125.1. *Eufrieseini* Moure, 1944b:12. *Eufriesea*; stem: *Eufriese*-.

The proper name for the Emphorini has been a subject of discussion. The name proposed by Robertson (1904) based on *Emphor* is senior to the name based on *Entechnia* proposed by Cockerell (1906d) and the name based on *Melitoma* proposed by Vachal (1909b) (91 above). The name Entechniini has not been used in recent decades, presumably because *Entechnia* is a junior subjective synonym of *Melitoma*, and before 1961 the family-group name based on *Entechnia* would have been rejected for that reason (Article 5, International Rules of Zoological Nomenclature, Proceedings of the Biological Society of Washington 39:75-104, 1926). The current confusion concerns the names based on *Emphor* and *Melitoma* and resulted from the

fact that *Emphor* is a junior subjective synonym of *Ptilothrix*. Moure (1944c) proposed Melitomini without explanation, but Moure (1947b:240) stated that the replacement of *Emphorini* by Melitomini was necessary because *Emphor* had become a synonym of *Ptilothrix*. The Rules at that time (reference above) required replacement of a family-group name based on a genus name that was a junior synonym. However, as shown above, the name Melitomini dates from Vachal (1909b), who listed *Emphor* as an included genus.

The Code, 3rd ed., Art. 40(b), states that if a family-group name was replaced before 1961 because the genus on which it was based is a junior synonym, and if the replacement has won general acceptance, it is to be maintained. The name based on *Emphor* was replaced by that based on *Melitoma* by Moure in 1944. Since that date, the two family-group names have been used with almost equal

frequency; an incomplete list prepared by A. Roig-Alsina in 1996 shows 13 usages of *Emphorini* and 9 usages of Melitomini since 1944. However, most usages in the present decade (1990's) employed the name *Emphorini*. Thus, current usage seems to favor *Emphorini*.

It is preferable to have a family-group name based on an accepted genus rather than on a junior synonym, an argument that favors Melitomini. For this reason and because a replacement for the name *Emphorini* was in fact appropriate in 1944 when Melitomini was proposed by Moure, the matter remains contentious. A request for a decision submitted to the Commission elicited the response that *Emphorini* is the appropriate name and that there is no need to go to the time and expense of publication in the Bulletin of Zoological Nomenclature and evaluation and decision by the Commission.

LITERATURE CITED

- Agassiz, L. 1846. *Nomenclatoris Zoologici Index Universalis*. viii + 393 pp. Soloduri: Jent and Gassmann.
- Alexander, B. A., and C. D. Michener. 1995. Phylogenetic studies of the families of short-tongued bees. University of Kansas Science Bulletin 55:377–424.
- Alfken, J. D. 1912. Die Bienenfauna von Westpreussen. Bericht des Westpreussischen Botanisch-Zoologischen Vereins [Danzig] 34:1–94, pls. I–II.
- Alfken, J. D. 1924. Wissenschaftliche Ergebnisse der mit unterstützung der Akademie der Wissenschaften in Wien aus der Erbschaft Treitl von F. Werner unternommenen zoologischen Expedition nach dem Anglo-Agyptischen Sudan (Kordofan) 1914, XVI Hymenoptera F. Apidae. Denkschriften der Akademie der Wissenschaften in Wien, Mathematische-Naturwissenschaftliche Klasse 99:247–257.
- Alfken, J. D. 1926a. Die mir bekannten chilenischen Arten der Bienengattung *Corynura* M. Spinola. Deutsche Entomologische Zeitschrift 1926:145–163.
- Alfken, J. D. 1926b. Fauna Buruana, Hymenoptera, Fam. Apidae. Treubia 7:259–275.
- Alfken, J. D. 1933. Beitrag zur Kenntnis der Untergattung *Pseudomegachile* Friese. Konowia 12:55–59.
- Alfken, J. D. 1935. Beitrag zur Kenntnis der Bienenfauna von Palästina. Veröffentlichungen des Deutschen Kolonial- und Uebersee-Museums, Bremen 2:169–192.
- Alfken, J. D. 1937. Zur Unterscheidung der Bienengattungen *Crocisa* Jur. und *Melecta* Latr. Konowia 16:172–175.
- Alfken, J. D. 1938. Ein weiterer Beitrag zur Kenntnis der Bienenfauna von Palästina mit Einschluss des Sinai-Gebirges. Deutsche Entomologische Zeitschrift 1938:418–433.
- Alfken, J. D. 1939. Hymenoptera, Apidae. Pp. 111–122 in *Missione Biologica nel Paese dei Borana*. Vol. 3, *Raccolte Zoologiche*. Part 2. Roma: Reale Accademia d'Italia.
- Armbruster, L. 1938. Versteinerte Honigbienen aus dem obermiocanen Randecker Maar. Archiv für Bienenkunde 19:1–48, 97–133.
- Ashmead, W. H. 1890. On the Hymenoptera of Colorado; Descriptions of new species, notes, and a list of the species found in the state. Bulletin of the Colorado Biological Association No. 1.1–47.
- Ashmead, W. H. 1894. The habits of aculeate Hymenoptera II. Psyche 7:40–46.
- Ashmead, W. H. 1898. Some new genera of bees. Psyche 8:282–285.
- Ashmead, W. H. 1899a. Classification of the bees, or the superfamily Apoidea. Transactions of the American Entomological Society 26:49–100.
- Ashmead, W. H. 1899b. A generic table of the family Panurgidae: A reply to Mr. Cockerell's critique on the segregation of *Perdita* Cockerell (sic). Psyche 9:372–376.
- Ashmead, W. H. 1904a. Remarks on honey bees. Proceedings of the Entomological Society of Washington 6:120–122.
- Ashmead, W. H. 1904b. A list of the Hymenoptera of the Philippine Islands, with descriptions of new species. Journal of the New York Entomological Society 12:1–22.
- Baker, C. F. 1906. American bees related to *Melecta*. Invertebrata Pacifica 1:142–145.
- Baker, D. B. 1994. A new genus of nomadine bees from north Africa. Tijdschrift voor Entomologie 137:155–159.
- Baker, D. B. 1995a. A new Malayan *Andrena*. Deutsche Entomologische Zeitschrift (n.f.)42:67–69.
- Baker, D. B. 1995b. *Xeramnobates* Popov, 1951 (Insecta, Hymenoptera): Proposed designation of *Ammobates* (*Xeramnobates*) *oxianus* Popov, 1951 as the type species. Bulletin of Zoological Nomenclature 52:157–158.
- Ball, F. J. 1914. Les bourdons de la Belgique. Annales de la Société Entomologique de Belgique 58:77–108, 1 pl.
- Benoist, R. 1962. Nouvelles espèces d'apides malgaches. Bulletin de la Société Entomologique de France 67:214–223.
- Benson, R. B., C. Ferrière, and O. W. Richards. 1937. Part 5. The generic names of the British Hymenoptera Aculeata, with a check list of British species. Pp. 81–149 in *The Generic Names of British Insects*. London: Royal Entomological Society.
- Berthold, A. A. 1827. *Latreille's natürliche Familien des Thierreichs mit Anmerkungen und Zusätzen*. Weimar: Industr.-Compt. 8 + 602 pp.
- Bischoff, H. 1923. Zur Kenntnis afrikanischer Schmarotzerbienen. Deutsche Entomologische Zeitschrift 1923:585–603.
- Bischoff, H. 1930. Beitrag zur Kenntnis paläarktischer Arten der Gattung *Epeorus*. Deutsche Entomologische Zeitschrift 1930:1–15.
- Bischoff, H. 1936. Schwedisch-chinesische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas, unter Leitung von Dr. Sven Hedin und Prof. Su Ping-chang. Insekten gesammelt vom schwedischen Arzt der Expedition Dr. David Hummel 1927–1930. 56. Hymenoptera. 10. Bombinae. Arkiv för Zoologi 27:1–27.
- Blanchard, E. 1840. Hyménoptères. Pp. 219–415, pls. 1–7, m F. L. N. Laporte de Castelnau, *Histoire Naturelle des Insectes*.... Vol. 3. Paris: Duménil. Castelnau is commonly cited as the name of the editor of this work, but for consistency with Lepeletier de Saint-Fargeau, Laporte seems more appropriate, as indicated by D. B. Baker, in litt. (1996).
- Blanchard, E. 1845–1849. Hyménoptères. Pp. 113–227, pls. 107–129, m G. L. C. F. D. Cuvier, *Le Régne Animal*..., ed. 3 ('disciples' edition"). Vol. 2. Paris: Fortin, Masson. Usually dated 1849; but see F. C. Cowan, 1976, Journal of the Society for the Bibliography of Natural History 8:32–64. The text on bees (Les Mellifères, pp. 201–227) appeared in 1846. Plates and their years of publication are as follows: 125, 1847; 126, 1846; 127, 1846; 128, 1847; 128 bis, 1846, 129, 1845.

- Blüthgen, P. 1926. Beiträge zur Kenntnis der indo-malayischen *Halictus*- und *Thrinacostoma*-Arten. Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 51:375–698, pls. 4–5.
- Blüthgen, P. 1928a. 2. Beitrag zur Kenntnis der äthiopischen Halictinae. Deutsche Entomologische Zeitschrift 1928:49–72.
- Blüthgen, P. 1928b. Beiträge zur Kenntnis der afrikanischen Halictinae. Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 55:163–252.
- Blüthgen, P. 1930. Beitrag zur Kenntnis der äthiopischen Halictinae. Mitteilungen aus dem Zoologischen Museum in Berlin 15:495–542.
- Blüthgen, P. 1931. Beiträge zur Kenntnis der indomalayischen *Halictus*- und *Thrinacostoma*-Arten. Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 61:285–346.
- Blüthgen, P. 1933. Beitrag zur Kenntnis der äthiopischen Halictinae. Mitteilungen aus dem Zoologischen Museum in Berlin 18:363–394.
- Blüthgen, P. 1936. Beitrag zur Kenntnis der äthiopischen Halictinae. Deutsche Entomologische Zeitschrift 1935:177–190.
- Blüthgen, P. 1937. Halictinae (Hymenoptera; Apidae) von den Kanarischen Inseln. Commentationes Biologicae (Societas Scientiarum Fennica) 6(11):1–11.
- Blüthgen, P. 1949. Neues oder Wissenswertes über mitteleuropäische Aculeaten und Goldwespen I. Apidae. Beiträge zur Taxonomischen Zoologie 1:77–100.
- Blüthgen, P. 1955. The Halictinae (Hymen., Apoidea) of Israel. I. Genus *Halictus* (subgenera *Halictus* s. str. and *Thrincolalictus*). Bulletin of the Research Council of Israel (B)5:5–23.
- Blüthgen, P. 1961. Ergebnisse der Deutschen Afghanistan-Expedition 1956 der Landessammlungen für Naturkunde Karlsruhe. Beiträge zur Naturkundlichen Forschung in Südwestdeutschland 19:277–287.
- Bohart, G. E. 1965. A new genus of dufoureine bee from Texas (Hymenoptera: Halictidae). Annals of the Entomological Society of America 58:319–321.
- Börner, C. 1919. Stammesgeschichte der Hautflügler. Biologisches Zentralblatt 39:145–185.
- Brauns, H. 1902. *Eucondylops* n. g. apidarum. Zeitschrift für systematische Hymenopterologie und Dipterologie 2:377–380.
- Brauns, H. 1926. V. Nachtrag zu "Fiere, Bienen Afrikas." Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 52:187–230, pl. 5.
- Brauns, H. 1929. Neue und auffallende Apiden aus Sud-Afrika. Zeitschrift für Wissenschaftliche Insektenbiologie 24:130–143.
- Brèthes, J. 1909a. Hymenoptera Paraguayensis. Anales del Museo Nacional de Buenos Aires 20:225–256.
- Brèthes, J. 1909b. Himenópteros nuevos de las Repúblicas del Plata y del Brasil. Anales del Museo Nacional de Buenos Aires 19:49–69.
- Brèthes, J. 1909c. Himenópteros de Mendoza y de San Luis. Anales del Museo Nacional de Buenos Aires 17:455–463.
- Brèthes, J. 1910. Sur les *Ancylodochis* et genres voisins [Hym.]. Bulletin de la Société Entomologique de France 1910:211–213.
- Brèthes, J. 1922. Himenópteros y Dipteros de varias procedencias. Anales de la Sociedad Científica Argentina 93:119–146.
- Bridwell, J. C. 1919. Miscellaneous notes on Hymenoptera. Proceedings of the Hawaiian Entomological Society 4:109–165.
- Broemeling, D. K. 1988. A revision of the *Nomada* subgenus *Nomadita* of North America. Pan-Pacific Entomologist 64:321–344.
- Brooks, R. W. 1988. Systematics and phylogeny of the anthophorine bees. University of Kansas Science Bulletin 53:436–575.
- Buysson, R. du. 1900. Sur quelques hyménoptères de Madagascar. Annales de la Société Entomologique de France 69:177–180.
- Camargo, J. M. F., and J. S. Moure. 1983. *Trichotrigona*, um novo gênero de Meliponinae (Hymenoptera, Apidae), do Rio Negro, Amazonas, Brasil. Acta Amazônica 13:421–429.
- Cameron, P. 1898. Hymenoptera Orientalia, or contributions to a knowledge of the Hymenoptera of the Oriental zoological region, Part VII. Memoirs, Manchester Literary and Philosophical Society 42(11):1–84, pl. 4.
- Cameron, P. 1901a. Descriptions of three new genera and seven new species of Hymenoptera from eastern Asia and Australia. Annals and Magazine of Natural History (7)8:116–123.
- Cameron, P. 1901b. Description of a new genus of bees from India. Entomologist 34:262–263.
- Cameron, P. 1902a. Descriptions of new genera and species of Hymenoptera collected by Major C. G. Nurse at Deesa, Simla and Ferozepore, Part II. Journal of the Bombay Natural History Society 14:419–449.
- Cameron, P. 1902b. On the Hymenoptera collected by Mr. Robert Shelford at Sarawak and on the Hymenoptera of the Sarawak Museum. Journal of the Straits Branch of the Royal Asiatic Society 37:29–140.
- Cameron, P. 1903a. Descriptions of new species of Hymenoptera taken by Mr. Edward Whymper on the "Higher Andes of the Equator." Transactions of the American Entomological Society 29:225–238.
- Cameron, P. 1903b. Descriptions of new genera and species of Hymenoptera taken by Mr. Robert Shelford at Sarawak, Borneo. Journal of the Straits Branch of the Royal Asiatic Society 39:89–181.
- Cameron, P. 1905. On the Hymenoptera of the Albany Museum, Grahamstown, South Africa. Records of the Albany Museum 1:185–265.
- Cameron, P. 1907. On a new genus and some new species of aculeate Hymenoptera collected by Lieut.-Col. C. G. Nurse in Baluchistan. Journal of the Bombay Natural History Society 18:130–136.
- Cockerell, T. D. A. 1895. New species of bees. Psyche 7, Supplement 1:9–11.
- Cockerell, T. D. A. 1896. The bees of the genus *Andrena* found in New Mexico. Annals and Magazine of Natural History (6)18:78–92.
- Cockerell, T. D. A. 1897a. On the generic position of some bees hitherto referred to *Panurgus* and *Calliopsis*. Canadian Entomologist 29:287–290.
- Cockerell, T. D. A. 1897b. On the Mexican bees of the genus *Augochlora*. Canadian Entomologist 29:4–6.
- Cockerell, T. D. A. 1897c. A new genus of bees. Entomological News 8:197.
- Cockerell, T. D. A. 1897d. Life-zones in New Mexico. Agricultural Experiment Station, New Mexico College of Agriculture, Bulletin No. 24:1–44.
- Cockerell, T. D. A. 1898a. New bees from New Mexico. Canadian Entomologist 30:146–148.
- Cockerell, T. D. A. 1898b. On some panurgine and other bees. Transactions of the American Entomological Society 25:185–198.
- Cockerell, T. D. A. 1899a. Notes on nomenclature of some Hymenoptera. Entomologist 32:14.
- Cockerell, T. D. A. 1899b. Some synonymy. Psyche 8:311–312.
- Cockerell, T. D. A. 1899c. *Catálogo de las Abejas de México*. Ciudad de México: Secretaría de Fomento. 20 pp.
- Cockerell, T. D. A. 1900a. Descriptions of new bees collected by Mr. H. H. Smith in Brazil I. Proceedings of the Academy of Natural Sciences of Philadelphia 52:356–377.
- Cockerell, T. D. A. 1900b. Observations on bees collected in Las Vegas, New Mexico, and in the adjacent mountains. Annals and Magazine of Natural History (7)5:401–416.
- Cockerell, T. D. A. 1901a. Descriptions of new bees collected by Mr. H. H. Smith in Brazil II. Proceedings of the Academy of Natural Sciences of Philadelphia 53:216–222.
- Cockerell, T. D. A. 1901b. A peculiar new type of halictine bees. Entomological News 12:208–209.
- Cockerell, T. D. A. 1903a. A catalogue of the bees of California. Psyche 10:74–78.
- Cockerell, T. D. A. 1903b. New American Hymenoptera, mostly of the genus *Nomada*. Annals and Magazine of Natural History (7)12:200–214.
- Cockerell, T. D. A. 1903c. North American bees, and a new homopteron. Annals and Magazine of Natural History (7)12:442–455.
- Cockerell, T. D. A. 1903d. Bees of the genus *Nomada* from California. Proceedings of the Academy of Natural Sciences of Philadelphia 55:559–614.
- Cockerell, T. D. A. 1904a. The genus *Apista*, etc. Canadian Entomologist 36:357.
- Cockerell, T. D. A. 1904b. New genera of bees. Entomological News 15:292.
- Cockerell, T. D. A. 1904c. The bees of southern California. I. Bulletin of the Southern California Academy of Sciences 3:3–6.
- Cockerell, T. D. A. 1904d. New records of bees. Entomologist 37:231–236.

- Cockerell, T. D. A. 1905a. Notes on some bees in the British Museum. *Transactions of the American Entomological Society* 31:309–364.
- Cockerell, T. D. A. 1905b. Descriptions and records of bees. III. *Annals and Magazine of Natural History* (7)16:301–308.
- Cockerell, T. D. A. 1905c. Some American Hymenoptera. *Entomological News* 16:9–11.
- Cockerell, T. D. A. 1905d. New Australian bees in the collection of the British Museum. *Entomologist* 38:270–273, 302–304.
- Cockerell, T. D. A. 1906a. Fossil Hymenoptera from Florissant, Colorado. *Bulletin of the Museum of Comparative Zoology, Harvard University* 50:33–58.
- Cockerell, T. D. A. 1906b. Four interesting Australian bees, in the collection of the British Museum. *Entomologist* 39:15–18.
- Cockerell, T. D. A. 1906c. North American bees of the genera *Andrena* and *Melitta* in the British Museum. *Psyche* 13:33–37.
- Cockerell, T. D. A. 1906d. The North American bees of the family Anthophoridae. *Transactions of the American Entomological Society* 32:63–116.
- Cockerell, T. D. A. 1906e. The bees of Florissant, Colorado. *Bulletin of the American Museum of Natural History* 22:419–455.
- Cockerell, T. D. A. 1907a. A fossil honey-bee. *Entomologist* 40:227–229.
- Cockerell, T. D. A. 1907b. Descriptions and records of bees. XV. *Annals and Magazine of Natural History* 7(20):59–68.
- Cockerell, T. D. A. 1907c. On a collection of Australian and Asiatic bees. *Bulletin of the American Museum of Natural History* 23: 221–236.
- Cockerell, T. D. A. 1908a. Notes on the bee-genus *Eucratite*. *Psyche* 15:41–42.
- Cockerell, T. D. A. 1908b. A new subgenus of African bees. *Entomologist* 41:146–147.
- Cockerell, T. D. A. 1908c. Descriptions and records of bees. XIX. *Annals and Magazine of Natural History* (8)1:337–344.
- Cockerell, T. D. A. 1908d. Descriptions and records of bees. XX. *Annals and Magazine of Natural History* (8)2:323–334.
- Cockerell, T. D. A. 1909a. Descriptions and records of bees. XXIII. *Annals and Magazine of Natural History* (8)4:393–404.
- Cockerell, T. D. A. 1909b. Some European bees. *Entomologist's Record* 21:269–270.
- Cockerell, T. D. A. 1909c. Descriptions of some bees in the U.S. National Museum. *Proceedings of the United States National Museum* 36:411–420.
- Cockerell, T. D. A. 1909d. Some European fossil bees. *Entomologist* 42:313–317.
- Cockerell, T. D. A. 1909e. Descriptions of Hymenoptera from Baltic amber. *Schriften der Physikalische-ökonomischen Gesellschaft zu Königsberg* 50:1–20.
- Cockerell, T. D. A. 1909f. Two fossil bees. *Entomological News* 20:159–161.
- Cockerell, T. D. A. 1909g. Some additional bees from Prussian amber. *Schriften der Physikalische-ökonomischen Gesellschaft zu Königsberg* 50:21–25.
- Cockerell, T. D. A. 1910a. New and little-known bees. *Transactions of the American Entomological Society* 36:199–249.
- Cockerell, T. D. A. 1910b. Descriptions and records of bees. XXXIII. *Annals and Magazine of Natural History* (8)6:356–366.
- Cockerell, T. D. A. 1910c. Some very small Australian bees. *Entomologist* 43:262–264.
- Cockerell, T. D. A. 1910d. Some new American bees. *Canadian Entomologist* 42:169–171.
- Cockerell, T. D. A. 1910e. Descriptions and records of bees. XXIV. *Annals and Magazine of Natural History* (8)5:22–30.
- Cockerell, T. D. A. 1910f. The North American bees of the genus *Nomia*. *Proceedings of the United States National Museum* 38:289–298.
- Cockerell, T. D. A. 1911a. A new genus of Australian bees. *Entomologist* 44:140–142.
- Cockerell, T. D. A. 1911b. Bees in the collection of the United States National Museum, 2. *Proceedings of the United States National Museum* 40:241–264.
- Cockerell, T. D. A. 1911c. Descriptions and records of bees. XXXV. *Annals and Magazine of Natural History* (8)7:310–319.
- Cockerell, T. D. A. 1911d. Descriptions and records of bees. XXXIV. *Annals and Magazine of Natural History* (8)7:225–237.
- Cockerell, T. D. A. 1911e. Descriptions and records of bees. XXXIX. *Annals and Magazine of Natural History* (8)8:660–673.
- Cockerell, T. D. A. 1911f. New and little known bees. *Transactions of the American Entomological Society* 37:217–241.
- Cockerell, T. D. A. 1912. New and little-known bees. *Entomologist* 45:175–178.
- Cockerell, T. D. A. 1913. The bee genus *Hoplitella*. *Canadian Entomologist* 45:34.
- Cockerell, T. D. A. 1914. Bees from Ecuador and Peru. *Journal of the New York Entomological Society* 22:306–328.
- Cockerell, T. D. A. 1915. Descriptions and records of bees. LXVI. *Annals and Magazine of Natural History* (8)15:341–350.
- Cockerell, T. D. A. 1916a. Descriptions and records of bees. LXXII. *Annals and Magazine of Natural History* (8)17:428–435.
- Cockerell, T. D. A. 1916b. Descriptions and records of bees. LXXIII. *Annals and Magazine of Natural History* (8)18:44–53.
- Cockerell, T. D. A. 1916c. New and little known bees from California. *Pomona Journal of Entomology and Zoology* 8:43–64.
- Cockerell, T. D. A. 1916d. Some neotropical parasitic bees (Hym.). *Entomological News* 27:208–210.
- Cockerell, T. D. A. 1917a. New social bees. *Psyche* 24:119–128.
- Cockerell, T. D. A. 1917b. Some euglossine bees. *Canadian Entomologist* 49:144–146.
- Cockerell, T. D. A. 1917c. New records of bees from Natal. *Annals of the Durban Museum* 1:460–468.
- Cockerell, T. D. A. 1918a. The megachilid bees of the Philippine Islands. *Philippine Journal of Science* (D)13:127–144.
- Cockerell, T. D. A. 1918b. Neotropical bees, principally collected by Professor Bruner in Argentina. *Transactions of the American Entomological Society* 44:25–38.
- Cockerell, T. D. A. 1919a. Bees in the collection of the United States National Museum 3. *Proceedings of the United States National Museum* 55:167–221.
- Cockerell, T. D. A. 1919b. The metallic-colored halictine bees of the Philippine Islands. *Philippine Journal of Science* 15:9–13.
- Cockerell, T. D. A. 1920a. On South African bees, chiefly collected in Natal. *Annals of the Durban Museum* 2:247–262.
- Cockerell, T. D. A. 1920b. On South African bees, chiefly collected in Natal. *Annals of the Durban Museum* 2:286–318.
- Cockerell, T. D. A. 1921a. Descriptions and records of bees. XC. *Annals and Magazine of Natural History* (9)7:201–212.
- Cockerell, T. D. A. 1921b. The epeoline bees of the American Museum Rocky Mountain expeditions. *American Museum Novitates* no. 23:1–16.
- Cockerell, T. D. A. 1922a. Notes on some western bees. *American Museum Novitates* no. 40:1–7.
- Cockerell, T. D. A. 1922b. Descriptions and records of bees. XCV. *Annals and Magazine of Natural History* (9)10:265–269.
- Cockerell, T. D. A. 1922c. Bees of the genus *Panurginus* obtained by the American Museum Rocky Mountain expeditions. *American Museum Novitates* no. 36:1–10.
- Cockerell, T. D. A. 1922d. Two new subgenera of North American bees. *American Museum Novitates* no. 47:1–5.
- Cockerell, T. D. A. 1922e. Bees in the collection of the United States National Museum. 4. *Proceedings of the United States National Museum* 60:1–20.
- Cockerell, T. D. A. 1923a. Two nocturnal bees and a minute *Perdita*. *American Museum Novitates* no. 66:1–4.
- Cockerell, T. D. A. 1923b. Some bees from British Guiana. *Annals and Magazine of Natural History* (9)11:442–459.
- Cockerell, T. D. A. 1924a. Descriptions and records of bees. Cl. *Annals and Magazine of Natural History* (9)14:179–185.
- Cockerell, T. D. A. 1924b. A new genus of bees from California. *Entomological News* 35:169–171.
- Cockerell, T. D. A. 1924c. A new bee from Oregon. *Psyche* 31:243–244.
- Cockerell, T. D. A. 1924d. Notes on the structure of bees. *Proceedings of the Entomological Society of Washington* 26:77–85.
- Cockerell, T. D. A. 1925a. Anthidiine bees in the collection of the California Academy of Sciences. *Proceedings of the California Academy of Sciences* (4)14:345–367.

- Cockerell, T. D. A. 1925b. Bees in the collection of the California Academy of Sciences. Proceedings of the California Academy of Sciences (4)14:185-215.
- Cockerell, T. D. A. 1926a. Descriptions and records of bees. CVIII. Annals and Magazine of Natural History (9)17:214-226.
- Cockerell, T. D. A. 1926b. Descriptions and records of bees. CXII. Annals and Magazine of Natural History (9)18:216-227.
- Cockerell, T. D. A. 1926c. Descriptions and records of bees. CXIII. Annals and Magazine of Natural History (9)18:621-627.
- Cockerell, T. D. A. 1927a. Two new types of desert bees. Pan-Pacific Entomologist 4:41-44.
- Cockerell, T. D. A. 1927b. Megachilid bees from Bolivia collected by the Mulford biological expedition, 1921-22. Proceedings of the United States National Museum 71(12):1-22.
- Cockerell, T. D. A. 1929a. Bees in the Australian Museum collection. Records of the Australian Museum 17:199-243.
- Cockerell, T. D. A. 1929b. Bees in the Queensland Museum. Memoirs of the Queensland Museum 9:298-323.
- Cockerell, T. D. A. 1929c. Descriptions and records of bees. CXV. Annals and Magazine of Natural History (10)3:354-360.
- Cockerell, T. D. A. 1929d. Descriptions and records of bees. CXX. Annals and Magazine of Natural History (10)4:584-594.
- Cockerell, T. D. A. 1929e. Descriptions and records of bees. CXIX. Annals and Magazine of Natural History (10)4:296-304.
- Cockerell, T. D. A. 1929f. New name for a genus of bees. Entomologist 62:19.
- Cockerell, T. D. A. 1930a. African bees of the family Ctenoplectridae from the Belgian Congo and Liberia. Revue de Zoologie et de Botanique Africaines 18:359-363.
- Cockerell, T. D. A. 1930b. African bees of the family Megachilidae, (Anthidiinae, Serapista and Lithurgus) mainly from Liberia and the Belgian Congo. Revue de Zoologie et de Botanique Africaines 19:43-55.
- Cockerell, T. D. A. 1930c. The bees of Australia. Australian Zoologist 6:205-236.
- Cockerell, T. D. A. 1930d. A new subgenus of andrenine bees. Pan-Pacific Entomologist 7:5-8.
- Cockerell, T. D. A. 1930e. New Australian bees. Memoirs of the Queensland Museum 10:37-50.
- Cockerell, T. D. A. 1930f. A new African genus of Ceratinidae (Hymenoptera, Apoidea). Revue de Zoologie et de Botanique Africaines 18:291-293.
- Cockerell, T. D. A. 1931a. Some African bees. Annals and Magazine of Natural History (10)8:400-405.
- Cockerell, T. D. A. 1931b. Heriadine and related bees from Liberia and the Belgian Congo. Revue de Zoologie et de Botanique Africaines 20:331-341.
- Cockerell, T. D. A. 1931c. African bees of the family Megachilidae from Liberia and the Belgian Congo. Revue de Zoologie et de Botanique Africaines 20:132-179.
- Cockerell, T. D. A. 1931d. Descriptions and records of bees. CXXX. Annals and Magazine of Natural History (10)8:537-553.
- Cockerell, T. D. A. 1931e. Descriptions and records of bees. CXXVI. Annals and Magazine of Natural History (10)7:273-281.
- Cockerell, T. D. A. 1931f. Descriptions and records of bees. CXXVIII. Annals and Magazine of Natural History (10)7:529-536.
- Cockerell, T. D. A. 1932. Bees from the Belgian Congo. Revue de Zoologie et de Botanique Africaines 23:18-27.
- Cockerell, T. D. A. 1933a. Descriptions and records of bees. CXLIII. Annals and Magazine of Natural History (10)11:456-468.
- Cockerell, T. D. A. 1933b. Descriptions and records of bees. CXLV. Annals and Magazine of Natural History (10)12:126-136.
- Cockerell, T. D. A. 1933c. Bees collected at Borego, California, by Wilmatté Cockerell and Milene Porter. Pan-Pacific Entomologist 9:25-28.
- Cockerell, T. D. A. 1934a. Descriptions and records of bees. CXLVIII. Annals and Magazine of Natural History (10)13:444-456.
- Cockerell, T. D. A. 1934b. Some African meliponine bees. Revue de Zoologie et de Botanique Africaines 26:46-62.
- Cockerell, T. D. A. 1934c. Some new or little-known South African bees of the genus *Allodape* in the British Museum. Annals and Magazine of Natural History (10)14:220-242.
- Cockerell, T. D. A. 1935a. Some California bees. Pan-Pacific Entomologist 11:49-54.
- Cockerell, T. D. A. 1935b. Scientific results of the Vernay-Lang Kalahari expedition, March to September, 1930, Hymenoptera (Apoidea). Annals of the Transvaal Museum 17:63-94.
- Cockerell, T. D. A. 1936a. Bees from northern California. Pan-Pacific Entomologist 12:133-164.
- Cockerell, T. D. A. 1936b. Descriptions and records of bees. CLIV. Annals and Magazine of Natural History (10)17:477-483.
- Cockerell, T. D. A. 1938. Bees of the genus *Sphexoides* from the Belgian Congo. Revue de Zoologie et de Botanique Africaines 30:327-329.
- Cockerell, T. D. A. 1947. A new genus of bees from Honduras. Proceedings of the Entomological Society of Washington 49:106.
- Cockerell, T. D. A., and E. Atkins. 1902. Contributions from the New Mexico Biological Station. XIII. On the bees of the family Nomadidae of Ashmead. Annals and Magazine of Natural History (7)10:40-46.
- Cockerell, T. D. A., and B. H. Blair. 1930. Rocky Mountain bees, I. American Museum Novitates no. 433:1-19.
- Cockerell, T. D. A., and W. P. Cockerell. 1901. Contributions from the New Mexico Biological Station. IX. On certain genera of bees. Annals and Magazine of Natural History (7)7:46-50.
- Cockerell, T. D. A., and W. Porter. 1899. Contributions from the New Mexico Biological Station. VII. Observations on bees, with descriptions of new genera and species. Annals and Magazine of Natural History (7)4:403-421.
- Crawford, J. C. 1903. A new genus of bees. Canadian Entomologist 35:337-338.
- Crawford, J. C. 1907. New North American Hymenoptera. Journal of the New York Entomological Society 15:177-192.
- Crawford, J. C. 1910. New Hymenoptera from the Philippine Islands. Proceedings of the United States National Museum 38:119-133.
- Crawford, J. C. 1915. The bee genus *Holcopasites* Ashmead. Insecutor Inscitiae Menstruus 3:123-126.
- Crawford, J. C. 1916. Some new American Hymenoptera. Insecutor Inscitiae Menstruus 4:135-144.
- Cresson, E. T. 1864. On the North American species of several genera of Apidae. Proceedings of the Entomological Society of Philadelphia 2:373-411.
- Cresson, E. T. 1865. On the Hymenoptera of Cuba. Proceedings of the Entomological Society of Philadelphia 4:1-200.
- Cresson, E. T. 1875. Report upon the collections of Hymenoptera made in portions of Nevada, Utah, Colorado, New Mexico, and Arizona. Report of the U.S. Geographical Survey west of the 100th Meridian 5:705-728.
- Cresson, E. T. 1878. Descriptions of new North American Hymenoptera in the collection of the American Entomological Society. Transactions of the American Entomological Society 7:61-136.
- Cresson, E. T. 1887. Synopsis of the families and genera of the Hymenoptera of America, north of Mexico. Transactions of the American Entomological Society, Supplementary Volume, 1887. Pp. 1-350 + errata page.
- Cure, J. R. 1899. Revisão de *Pseudagapostemon* Schrottky e descrição de *Oragapostemon* gen. n. Revista Brasileira de Entomologia 33:229-335.
- Curtis, J. 1826. *British Entomology*. Vol. 3. London: privately printed. Pl. 99-146.
- Curtis, J. 1828. *British Entomology*. Vol. 5. London: privately printed. Pl. 195-241.
- Curtis, J. 1831. *British Entomology*. Vol. 8. London: privately printed. Pl. 338-383.
- Curtis, J. 1832. *British Entomology*. Vol. 9. London: privately printed. Pl. 384-433.
- Curtis, J. 1833. *British Entomology*. Vol. 10. London: privately printed. Pl. 434-481.
- Dalla Torre, K. W. von. 1880. Unsere Hummel-(*Bombus*) Arten. Die Naturhistoriker 2:30, 40-41.
- Dalla Torre, K. W. von. 1882. Bemerkungen zur Gattung *Bombus* Latr., II. Bericht des Naturwissenschaftlich-Medizinischen Vereins in Innsbruck 12:14-31.
- Dalla Torre, K. W. von. 1891. Die Gattungen und Arten der Phileremiden. Bericht des Naturwissenschaftlich-Medizinischen Vereins in Innsbruck 19:137-159.

- Dalla Torre, C. G. de. 1896. Catalogus Hymenopterorum... Vol. 10. Apidae (Anthophila). Leipzig: Engelmann. viii + 643 pp.
- Dalla Torre, C. G. de, and H. Friese. 1895. Synonymischer Katalog der europäischen Sammelbienen. Entomologische Nachrichten 21:21–26, 37–50, 53–62, 69–80.
- Daly, H. V. 1988. Bees of the new genus *Ctenoceratina* in Africa south of the Sahara. University of California Publications in Entomology 108:i–ix + 1–69.
- Daly, H. V., C. D. Michener, J. S. Moure, and S. F. Sakagami. 1987. The relictual bee genus *Manuelia* and its relation to other Xylocopinae. Pan-Pacific Entomologist 63:102–124.
- Domrémy, J. 1898. Coup d'œil sur les mellifères sud-américains du muséum de Nantes. Bulletin de la Société Naturelle de l'Ouest de la France [Nantes] 8(1):57–63.
- Dours, L. 1872. Hyménoptères nouveaux du bassin Méditerranéen. Revue et Magasin de Zoologie (2)23:293–311, 349–359, 396–399, 419–434, pl. 28.
- Dours, L. 1873. Hyménoptères du bassin Méditerranéen. *Andrena* (suite). Revue et Magasin de Zoologie (3)1:274–325, pl. 14.
- Dressler, R. L. 1978. An infrageneric classification of *Euglossa*, with notes on some features of special taxonomic importance. Revista de Biología Tropical 26:187–198.
- Dressler, R. L. 1982. New species of *Euglossa*. III. The *bursigera* species group. Revista de Biología Tropical 30:131–140.
- Ducke, A. 1900. Die Bienengattung *Osmia* Panz. Bericht des Naturwissenschaftlich-Medizinischen Vereins in Innsbruck 25:1–323.
- Ducke, A. 1902. Ein neues subgenus von *Hahctus* Latr. Zeitschrift für systematische Hymenopterologie und Dipterologie 2:102–103.
- Ducke, A. 1907. Beitrag zur Kenntnis der Solitarbielen Brasiliens. Zeitschrift für systematische Hymenopterologie und Dipterologie 7:361–368.
- Ducke, A. 1912. Die natürlichen Bienengenera Sudamerikas. Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 34:51–116.
- Duméril, A. M. C. 1860. *Entomologie analytique. Histoire générale, classification naturelle méthodique des Insectes à l'aide de tableaux synoptiques*. Paris: (Mem. Acad. Sci. 31:i–xxii + 1–1239).
- Ebmer, A. W. 1984. Die westpaläarktischen Arten der Gattung *Dufourea* Lepeletier 1841 mit illustrierten Bestimmungstabellen. Senckenbergiana Biologica 64:313–379.
- Ebmer, A. W. 1988. Kritische Liste der nicht-parasitischen Halictidae Österreichs mit Berücksichtigung aller mitteleuropäischen Arten. Linzer Biologische Beiträge 20:527–711.
- Ebmer, A. W. 1993. Die westpaläarktischen Arten der Gattung *Dufourea* Lepeletier 1841 mit illustrierten Bestimmungstabellen, Dritter Nachtrag. Linzer Biologische Beiträge 25:15–42.
- Eickwort, G. C. 1969. A comparative morphological study and generic revision of the augochlorine bees. University of Kansas Science Bulletin 48:325–524.
- Eickwort, G. C. 1978. *Mexalictus*, a new genus of sweat bees from North America (Hymenoptera, Halictidae, Halictinae). Journal of the Kansas Entomological Society 51:567–580.
- Eickwort, G. C., and G. I. Stage. 1972. A new subgenus of neotropical *Sphexodes* cleptoparasitic upon *Dialictus* (Hymenoptera: Halictidae, Halictinae). Journal of the Kansas Entomological Society 45:500–515.
- Enderlein, G. 1903. Drei neue Bienen mit rüsselartiger Verlängerung des Kopfes. Berliner Entomologische Zeitschrift 48:35–40.
- Engel, M. S. 1997. New augochlorine bees (Hymenoptera: Halictidae) in Dominican amber, with a brief review of fossil Halictidae. Journal of the Kansas Entomological Society, 69(1996 suppl.):334–345.
- Exley, E. M. 1968a. *Quasihesma*—a new genus of Australian bees. Australian Journal of Zoology 16:227–235.
- Exley, E. M. 1968b. Revision of the genus *Brachyhesma* Michener. Australian Journal of Zoology 16:167–201.
- Exley, E. M. 1969. *Argohesma*—A new genus of Australian bees. Australian Journal of Zoology 17:527–534.
- Exley, E. M. 1972. Revision of the genus *Pachyprosops* Perkins. Australian Journal of Zoology, Supplementary Series No. 10:1–43.
- Exley, E. M. 1977. The Australian genus *Brachyhesma* (Apoidea: Colletidae) revised and reviewed. Australian Journal of Zoology, Supplementary Series No. 53:1–54.
- Exley, E. M. 1978. *Chaetohesma*—A new genus of Australian bees. Australian Journal of Zoology 26:373–397.
- Exley, E. M. 1996. *Tumidihesma*, a new genus of Australian bees. Australian Journal of Entomology 35:253–255.
- Fabricius, J. C. 1775. *Systema Entomologiae*.... Flensburgi et Lipsiae: Korte. 832 pp.
- Fabricius, J. C. 1793. *Entomologia Systematica Emendata et Aucta*. Vol. 2. Hafniae: Proft. viii + 519 pp.
- Fabricius, J. C. 1804. *Systema Piezatorum*.... Braunschweig. xiv + [15]–[440] + [1]–30 pp. The index (pp. [1]–30) appeared in 1805 according to Hedicke, 1941, Mitteilungen der Deutschen Entomologischen Gesellschaft 10:82–83.
- Fairmaire, L. 1858. *Ordre Hyménoptères*, in J. Thomson, *Voyage au Gabon, Histoire Naturelle des Insectes et des Arachnides*. Archives Entomologiques 2:263–267, figs. on pl. 10.
- Fallén, C. F. 1813. *Specimen Novam Hymenoptera Disponendi Methodum Exhibens*. Lund: Berling. 41 pp., 1 pl.
- Ferton, C. 1914. *Perezia maura*—nouveau genre d'apaires parasites d'Algérie et observations de ce genre. Annales de la Société Entomologique de France 83:233–237.
- Fox, W. J. 1894. A proposed classification of the fossorial Hymenoptera of North America. Proceedings of the Academy of Natural Sciences of Philadelphia 1894:292–307.
- Fox, W. J. 1902. *Lithurgopsis*, a new genus of bees. Entomological News 13:137–140.
- Franklin, H. J. 1954. The evolution and distribution of American bumble-bee kinds. Transactions of the American Entomological Society 80:43–51.
- Friese, H. 1895. *Die Bienen Europa's*. Thiel I. Berlin: Friedländer. 128 pp.
- Friese, H. 1896. Neue oder wenig bekannte Südeuropäische Apiden. Természetrajzi Füzetek 19:277–284.
- Friese, H. 1897a. *Die Bienen Europa's*. Theil III. Berlin: Friedlander. vi + 316 pp.
- Friese, H. 1897b. Monographie der Bienengattung *Nomia* (Latr.) (Palaeoarctic Formen). Pp. 45–84 in *Festschrift zur Feier des fünfzigjährigen Bestehens des Vereins für schlesische Insektenkunde in Breslau*. Breslau: Maruschke and Behrendt.
- Friese, H. 1898a. *Die Bienen Europa's*. Theil IV. Innsbruck: C. Lampe. 303 pp., 1 pl.
- Friese, H. 1898b. Species aliquot novae vel minus cognitae generis *Megachile* Latr. (et *Chalicodoma* Lep.). Természetrajzi Füzetek 21:198–202.
- Friese, H. 1898c. Beiträge zur Bienenfauna von Aegypten. Természetrajzi Füzetek 21:303–313.
- Friese, H. 1899a. Monographie der Bienengattungen *Megacilissa*, *Caupolicana* und *Oxaea*. Annalen des K. K. Naturhistorischen Hofmuseums (Wien) 14:239–246.
- Friese, H. 1899b. Monographie der Bienengattung *Euglossa*. Természetrajzi Füzetek 22:117–170.
- Friese, H. 1899c. *Die Bienen Europa's*. Theil V. Innsbruck: C. Lampe. 228 pp.
- Friese, H. 1900. Monographie der Bienengattung *Centris* (s. lat.). Annalen des K. K. Naturhistorischen Hofmuseums (Wien) 15:237–350.
- Friese, H. 1902. Zwei neue Bienengattungen. Zeitschrift für systematische Hymenopterologie und Dipterologie 2:186–187.
- Friese, H. 1903a. Neue Meliponiden II. Zeitschrift für systematische Hymenopterologie und Dipterologie 3:359–361.
- Friese, H. 1903b. *Meliturgula*, eine neue Bienengattung aus Sud-Afrika. Zeitschrift für systematische Hymenopterologie und Dipterologie 3:33–34.
- Friese, H. 1905a. Die Wollbienen Afrikas. Genus *Anthidium*. Zeitschrift für systematische Hymenopterologie und Dipterologie 5:65–75.
- Friese, H. 1905b. Neue *Anthophora*-Arten aus Afrika (Hym.). Zeitschrift für systematische Hymenopterologie und Dipterologie 5:233–242.
- Friese, H. 1906a. Die Bienengattung *Odiscelis* Philipp. [sic] und *Pseudoscelis*. Friese. Zeitschrift für systematische Hymenopterologie und Dipterologie 6:225–228.
- Friese, H. 1906b. Neue Bienenarten aus Chile und Argentina. Zeitschrift für systematische Hymenopterologie und Dipterologie 6:169–176.
- Friese, H. 1906c. Eine neue Bienengattung aus Chile und Argentinien. Zeitschrift für systematische Hymenopterologie und Dipterologie 6:374–380.

- Friese, H. 1906d. Resultate einer Reise des Herrn A. C. Jensen-Haarup in die Gegend von Mendoza (Argentina). Flora og Fauna 8:89–102.
- Friese, H. 1906e. Neue Schmarotzerbienen aus der neotropischen Region. Zeitschrift für systematische Hymenopterologie und Dipteronologie 6:118–121.
- Friese, H. 1908a. Neue Bienenarten aus Ostafrika. Deutsche Entomologische Zeitschrift 1908:567–572.
- Friese, H. 1908b. Die Apidae (Blumenwespen) von Argentina nach den Reisenergebnissen der Herren A. C. Jensen-Haarup und P. Jorgensen in den Jahren 1904–1907. Flora og Fauna 10:331–425, reprint 1–94.
- Friese, H. 1908c. Eine neue Bienengattung *Corbicula* aus Argentina. Zeitschrift für systematische Hymenopterologie und Dipteronologie 8:170–174.
- Friese, H. 1909a. Die Bienen Afrikas nach dem Stande unserer heutigen Kenntnisse. Pp. 83–476, pls. ix–x in L. Schultz (ed.), *Zoologische und Anthropologische Ergebnisse einer Forschungsreise im westlichen und zentralen Südafrika ausgerichtet in den Jahren 1903–1905. Band 2. Lieferung 1. X Insecta (Ser.3) [Jenaische Denkschriften Vol. 14]*. Jena: Gustav Fischer.
- Friese, H. 1909b. Die Bienenfauna von Neu-Guinea. Annales Musei Nationalis Hungarici 7:179–288.
- Friese, H. 1910a. Zur Bienenfauna des südlichen Argentinien (Hym.). Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 29:641–660.
- Friese, H. 1910b. 5. Apidae. Pp. 119–168 in Y. Sjostedt, *Wissenschaftliche Ergebnisse der schwedischen zoologischen Expedition nach dem Kilimajaro, dem Meru und den umgebenden Massaisteppen Deutsch-Ostafrikas 1905–1906. Band 2. Abt. 8 (Hymenoptera). Pt. 5 (Apidae)*. Stockholm: Palmquist.
- Friese, H. 1911a. Neue Bienen der äthiopischen Region. Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 30:671–678.
- Friese, H. 1911b. *Apidae I, Megachilinae. Das Tierreich*. Lieferung 28. Berlin: Friedlander. xxvi + 440 pp.
- Friese, H. 1911c. Nachtrag zu "Bienen Afrikas." Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 30:651–670.
- Friese, H. 1911d. Neue Bienen-Arten der palaearktischen Region (Hym.). Archiv für Naturgeschichte, Abt A 77(1):135–143.
- Friese, H. 1912. Neue und wenig bekannte Bienen Sud-Afrikas. Archiv für Naturgeschichte, Abt. A 78(5):181–189.
- Friese, H. 1913a. Neue Bienenarten aus Afrika. Deutsche Entomologische Zeitschrift 1913:573–578.
- Friese, H. 1913b. II. Nachtrag zu "Bienen Afrikas." Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 35:581–598.
- Friese, H. 1914a. Neue Apiden der palaearktischen Region. Stettiner Entomologische Zeitung 75:218–233.
- Friese, H. 1914b. Die Bienenfauna von Java. Tijdschrift voor Entomologie 57:1–61, 2 pls.
- Friese, H. 1914c. Neue Bienenarten der orientalischen Region. Deutsche Entomologische Zeitschrift 1914:320–324.
- Friese, H. 1916. Neue Bienen-Arten aus Chile und Sudamerika. Stettiner Entomologische Zeitung 77:163–174.
- Friese, H. 1918. Wissenschaftliche Ergebnisse einer Forschungsreise nach Ostindien, VII, Bienen aus Sumatra, Java, Malakka und Ceylon. Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 41:489–510.
- Friese, H. 1921a. Eine neue Bienengattung *Melittoides* n. gen., pp. 177–180, in J. Fahringer and H. Friese, 1921, Eine Hymenopteren-Ausbeute aus dem Amanusgebirge (Kleinasien und Nord-Syrien, sudl. Armenien). Archiv für Naturgeschichte, Abt A 87(3):150–180.
- Friese, H. 1921b. Nachtrag zur Bienenfauna von Costa Rica. Stettiner Entomologische Zeitung 82:74–98.
- Friese, H. 1922a. Eine neue Gattung der Urbienen: *Brachyglossa*. Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 45:577–580.
- Friese, H. 1922b. Eine neue Bienengattung aus Sudamerika: *Rhmetula*. Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 45:581–586.
- Friese, H. 1923. *Die europäischen Bienen*. Berlin and Leipzig: Gruyter. xvii + 456 pp., 33 pls.
- Friese, H. 1925a. Neue neotropische Bienenarten, zugleich II. Nachtrag zur Bienenfauna von Costa Rica. Stettiner Entomologische Zeitung 86:1–41.
- Friese, H. 1925b. IV. Nachtrag zu "Bienen Afrikas." Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere 49:501–512.
- Friese, H. 1930. Corrigenda zu "Neue neotropische Bienenarten" in Stettin, Entomologische Zeitung vol. 86, 1925. Stettiner Entomologische Zeitung 19127.
- Frison, T. H. 1927. A contribution to our knowledge of the relationships of the Bremidae of America north of Mexico (Hymenoptera). Transactions of the American Entomological Society 53:51–78, pls. XVI, XVII.
- Frison, T. H. 1930. The bumblebees of Java, Sumatra and Borneo. Treubia 12:1–22.
- Frison, T. H. 1935. Records and descriptions of *Bremus* from Asia (Bremidae: Hymenoptera). Records of the Indian Museum 37:339–363, 7 fig.
- Gernar, E. E. 1839. Die versteinerten Insecten Solenhofens. Nova Acta K. Leopoldinisch-Carolinische Deutsche Akademie der Naturforscher 19:187–222, 3 pls.
- Gerstaecker, A. 1857. [Bees and wasps collected in Mozambique]. Monatsberichte, Akademie der Wissenschaften, Berlin, 29 October 1857, pp. 460–464.
- Gerstaecker, A. 1868. *Psacmythia*, eine neue Bienengattung mit gezahnten Schienensporen. Archiv für Naturgeschichte 34:111–137.
- Gerstaecker, A. 1869. Beiträge zur näheren Kenntniss einiger Bienen-Gattungen. Entomologische Zeitung 30:139–184, 315–367.
- Girard, M. J. A. 1879. *Les Insectes. Traité Élémentaire d'Entomologie*. Vol. 2. Paris: Baillière. [i] + 1028 pp.
- Giraud, J. 1863. Hyménoptères recueillis aux environs de Suse, en Piemont, et dans le département des Hautes-Alpes, en France; et description de quinze espèces nouvelles. Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien 13:11–46.
- Gistel [Gistl], J. N. F. X. 1848. *Naturgeschichte des Thierreichs, für Höhere Schulen*. Stuttgart: Hoffmann. xvi + 216 pp., 32 pls.
- Gistel, J. N. F. X. 1850. Isis. Encyclopädische Zeitschrift, no. 6:82.
- Gray, G. 1832. [New genera and species.] In E. Griffith and E. Pidgeon, *Class Insecta, Arranged by the Baron Cuvier, with Supplementary Additions to Each Order, and Notices of New Genera and Species by George Gray, Esq.* Vol. 2. [This is volume 15 of the series: Griffith, E., 1832, *The Animal Kingdom Arranged in Conformity with its Organization by the Baron Cuvier, Member of the Institute of France, etc., with Supplementary Additions to Each Order.*] London.
- Gribodo, G. 1884. Sopra alcune specie nuove o poco conosciute di Imenotteri Antofili. Bullettino della Società Entomologica Italiana (Florence) 16:269–274.
- Gribodo, G. 1894. Note Imenotterologiche, Nota II. Nuovi generi e nuove specie di Imenotteri antofili ed osservazioni sopra alcune specie già conosciute. Bullettino della Società Entomologica Italiana (Florence) 26:76–135, 262–314.
- Griswold, T. 1986. A new heriadine bee from the Mojave Desert. Southwestern Entomologist 11:165–69.
- Griswold, T. L., and C. D. Michener. 1988. Taxonomic observations on Anthidiini of the western hemisphere. Journal of the Kansas Entomological Society 61:22–45.
- Guérin-Méneville, F. E. 1830. Crustacés, arachnides et insectes, Zool. 2, div. 1. In M. L. I. Duperrey, *Voyage Autour du Monde, Exécuté par Ordre du Roi, sur la Corvette ... La Coquille*. Paris: Bertrand. 319 pp., 22 pls. in Atlas. [The introduction is dated 1838 but the text appears to have been published in 1830 and 1831.]
- Guérin-Méneville, F. E. 1844. *Iconographie du Régne Animal de G. Cuvier*. Vol. 7. Insects. Paris: Baillière. 576 pp.
- Guiglia, D., and J. J. Pasteels. 1961. Aggiunte ed osservazioni all'elenco delle specie di imenotteri descritte da Guérin-Méneville che si trovano nelle collezioni del museo di Genova. Annali del Museo Civico di Storia Naturale di Genova 72:17–30.
- Gupta, R. K. 1987. On a new subgenus *Orientohierades* and two new species of genus *Hierades* Spinola from India. Reichenbachia 25(15):67–71.

- Gupta, R. K. 1990. On a new subgenus *Neashmeadiella* and two new species of genus *Ashmeadiella* Cock. from India. *Reichenbachia* 29(10):55-59.
- Gupta, R. K. 1991. A new subgenus of *Cochlios* Latreille (Hymenoptera: Apoidea: Megachilidae) from India. *Journal of the Bombay Natural History Society* 88:425-428.
- Gupta, R. K. 1992. On a new subgenus *Orientocoelioxys* and a new species of genus *Coclioxys* Latr. from India. *Reichenbachia* 29:73-76.
- Gupta, R. K. 1993. *Taxonomic Studies on the Megachilidae of North-Western India*. New Delhi: Indian Council of Agricultural Research. [4] + 288 pp.
- Haliday, A. H. 1836. Descriptions, etc. of the Hymenoptera. Pp. 316-331 in J. Curtis, A. H. Haliday, and F. Walker (eds.), *Descriptions, etc. of the insects collected by Captain P. P. King, R.N., F.R.S., in the survey of the Straits of Magellan. Transactions of the Linnean Society of London* 17.
- Hedicke, H. 1922. *Nomina nova*. *Deutsche Entomologische Zeitschrift* 1922:427-428.
- Hedicke, H. 1926. Beiträge zur Apidenfauna der Philippinen. *Deutsche Entomologische Zeitschrift* 1926:413-423.
- Hedicke, H. 1933. Beiträge zur Systematik der Gattung *Andrena* F. *Mitteilungen aus dem Zoologischen Museum in Berlin* 19:199-220.
- Hedicke, H. 1938. Über einige Apiden vom Hindu-kusch. *Deutsche Entomologische Zeitschrift* 1938:186-196.
- Heer, O. 1850. Die Insektenfauna der Tertiärgebilde von Oenigen und von Radoboj in Croatiae. *Neue Denkschriften der Allgemeinen Schweizerischen Gesellschaft für die gesammten Naturwissenschaften* [Zurich] 11:i-v + 1-264, pls. I-XVII.
- Heider, K. 1926. Pp. 161-320, in *Nomenclator Animalium Generum et Subgenerum*. Vol. 1. Lief. 2. Berlin: Preussischen Akademie der Wissenschaften.
- Heider, K. 1935. Pp. 2185-2248, in *Nomenclator Animalium Generum et Subgenerum*. Vol. 4. Lief. 16. Berlin: Preussischen Akademie der Wissenschaften.
- Hirashima, Y. 1956. Some bees of the genus *Nomia* Latreille from Formosa. *Insecta Matsumurana* 20:29-33.
- Hirashima, Y. 1963. Systematic and biological studies of the family Andrenidae of Japan (Hymenoptera, Apoidea) Part 2. Systematics, 2. *Journal of the Faculty of Agriculture, Kyushu University* 12:241-263.
- Hirashima, Y. 1964. Systematic and biological studies of the family Andrenidae of Japan (Hymenoptera, Apoidea) Part 2. Systematics, 4. *Journal of the Faculty of Agriculture, Kyushu University* 13:71-97.
- Hirashima, Y. 1965a. Systematic and biological studies of the family Andrenidae of Japan (Hymenoptera, Apoidea) Part 2. Systematics, 5. *Journal of the Faculty of Agriculture, Kyushu University* 13:461-491.
- Hirashima, Y. 1965b. Systematic and biological studies of the family Andrenidae of Japan (Hymenoptera, Apoidea) Part 2. Systematics, 6. *Journal of the Faculty of Agriculture, Kyushu University* 13:493-517.
- Hirashima, Y. 1967. A new subgenus and species of *Hylaeus* from New Guinea. *Kontyū* 35:134-138.
- Hirashima, Y. 1969. Synopsis of the genus *Pithitis* Klug of the world (Hymenoptera: Anthophoridae). *Pacific Insects* 11:649-669.
- Hirashima, Y. 1971a. Subgeneric classification of the genus *Ceratina* Latreille of Asia and West Pacific, with comments on the remaining subgenera of the world (Hymenoptera, Apoidea). *Journal of the Faculty of Agriculture, Kyushu University* 16:349-375.
- Hirashima, Y. 1971b. *Megaceratina*, a new genus of bees of Africa (Hymenoptera, Anthophoridae). *Journal of Natural History* 5:251-256.
- Hirashima, Y. 1978. A synopsis of the bee genus *Palaeorhiza* Perkins (Hymenoptera, Colletidae) of New Guinea. Part II. Subgenera *Gressittapis*, *Noonadania*, *Sphecodaster*, *Anchirhiza*, *Ceratorhiza*. *Esakia* no. 12:63-87.
- Hirashima, Y. 1980. A synopsis of the bee genus *Palaeorhiza* Perkins (Hymenoptera, Colletidae) of New Guinea, Part III. Subgenera *Trachyrhiza*, *Paraheterorhiza*, *Hadrorrhiza*. *Journal of the Faculty of Agriculture, Kyushu University* 25:99-117.
- Hirashima, Y. 1981a. A synopsis of the bee genus *Palaeorhiza* Perkins (Hymenoptera, Colletidae) of New Guinea, Part V. Subgenus *Cnemudorhiza*. *Esakia* no. 17:1-48.
- Hirashima, Y. 1981b. A synopsis of the bee genus *Palaeorhiza* Perkins (Hymenoptera, Colletidae) of New Guinea, Part IV. Subgenus *Cheesmania*. *Kontyū* 49:27-36.
- Hirashima, Y. 1982a. A synopsis of the bee genus *Palaeorhiza* Perkins (Hymenoptera, Colletidae) of New Guinea, Part VI. Subgenus *Zarhiopalca*. *Kontyū* 50:57-66.
- Hirashima, Y. 1982b. A synopsis of the bee genus *Palaeorhiza* Perkins (Hymenoptera, Colletidae) of New Guinea, Part VII. Subgenus *Cercorhiza*. *Journal of the Faculty of Agriculture, Kyushu University* 26:87-109.
- Hirashima, Y. 1989. A synopsis of the bee genus *Palaeorhiza* Perkins (Hymenoptera, Colletidae) of New Guinea, Part VIII. Subgenus *Callorhiza*. *Esakia* no. 28:1-9, pl. 1.
- Hirashima, Y. 1992. A new name of *Palaeorhiza*. *Japanese Journal of Entomology* 60:395.
- Hirashima, Y. 1996. Subgeneric classification of the genus *Xenorhiza* Michener of Papua New Guinea. *Memoirs of the Entomological Society of Washington* No. 17:78-81.
- Hirashima, Y., and M. A. Lieftinck. 1982. Systematic studies on the genus *Palaeorhiza* of New Guinea collected by the third Archbold expedition (I). *Esakia* no. 19:1-50.
- Hirashima, Y., and O. Tadauchi. 1975. A new subgenus of the genus *Andrena* (Hymenoptera, Andrenidae) from Japan and allied areas. *Journal of the Faculty of Agriculture, Kyushu University* 19:175-186.
- Hoffmannsegg, G. J. C. von. 1817. *Entomologische Bemerkungen bei Gelegenheit der Abhandlungen über amereikanische Insekten*. *Magazin* 1:8-56.
- Holmberg, E. L. 1884, 1886a. *Viajes al Tandil y a La Tinta*, 2nd Parte, *Zoología, Insectos. I. Himenópteros- Hymenoptera*. *Actas de la Academia Nacional de Ciencias de la República Argentina en Córdoba* 5:117-136 (1884), 137-184, 2 pls. (1886).
- Holmberg, E. L. 1886b, 1887a. *Sobre Ápidos Nómadas de la República Argentina*. *Anales de la Sociedad Científica Argentina* 22(1886):231-240, 272-286; 23(1887):17-33, 67-82.
- Holmberg, E. L. 1887b. *Viaje á Misiones*. *Boletín de la Academia Nacional de Ciencias en Córdoba* 10:5-391.
- Holmberg, E. L. 1903. *Delectus Hymenopterologicus Argentinus ... Anales del Museo Nacional de Buenos Aires* (3):377-512.
- Holmberg, E. L. 1909a. *Alloscirtetica*. Holmb. n. nom. *Apuntes de Historia Natural* [Buenos Aires] 1:77.
- Holmberg, E. L. 1909b. *Palinepeolus*. Holmb. nov. nom. *Apuntes de Historia Natural* [Buenos Aires] 1:77-78.
- Hong, Y.-c. 1984. New fossil insects of the Laiyang Group from the Laiyang Basin, Shandong Prov. *Professional Papers on Stratigraphy and Palaeontology* [Beijing] 11:31-41.
- Houston, T. F. 1981. A revision of the Australian hylaeine bees. II. *Australian Journal of Zoology, Supplementary Series* No. 80:1-128.
- Hurd, P. D., Jr. 1956. Notes on the subgenera of the new world carpenter bees of the genus *Xylocopa*. *American Museum Novitates* No. 1776:1-7.
- Hurd, P. D., Jr. 1979. Apoidea. Pp. 1741-2209, in K. V. Krombein, P. D. Hurd, Jr., D. R. Smith, and B. D. Burks (eds.), *Catalog of Hymenoptera in American North of Mexico*. Vol. 2. Washington, D. C.: Smithsonian Institution Press.
- Hurd, P. D., Jr., and E. G. Linsley. 1970. A classification of the squash and gourd bees *Peponapis* and *Xenoglossa*. *University of California Publications in Entomology* 62:i-iv + 1-39.
- Hurd, P. D., Jr., and E. G. Linsley. 1976. The bee family Oxaeidae with a revision of the North American species. *Smithsonian Contributions to Zoology* no. 220:1-75.
- Hurd, P. D., Jr., and C. D. Michener. 1961. *Lestis* Lepeletier and Serville, 1828 (Insecta: Hymenoptera); Proposed designation of a type species under the plenary powers. *Bulletin of Zoological Nomenclature* 18:201-202.
- Hurd, P. D., Jr., and J. S. Moure. 1960. A new-world subgenus of bamboo-nesting carpenter bees belonging to the genus *Xylocopa* Latreille. *Annals of the Entomological Society of America* 53:809-821.
- Hurd, P. D., Jr., and J. S. Moure. 1963. A classification of the large carpenter bees (Xylocopini). *University of California Publications in Entomology* 29:i-vi + 1-365.

- Ihering, H. von. 1912. Zur Biologie der brasilianischen Meliponiden. *Zeitschrift für Wissenschaftliche Insektenbiologie* 8(1):1–5, (2):43–46.
- Ikudome, S. 1989. A revision of the family Colletidae of Japan. *Bulletin of the Institute of Minami-kyūshū Regional Science, Kagoshima Women's Junior College* no. 5:43–314.
- Ikudome, S. 1991. Two new subgenera of *Hylaeus*. *Japanese Journal of Entomology* 59:789–792.
- Ikudome, S. 1994. A list of the bee taxa of Japan and their Japanese names. *Bulletin of Kagoshima Women's Junior College* no. 29:1–23.
- Illiger, K. 1801. Namen der Insekten-Gattungen, ihr Genitiv, ihr grammatisches Geschlecht, ihr Silbenmass, ihre Herleitung; zugleich mit den Deutschen Benennungen. *Magazin für Insektenkunde* 1:125–155.
- Illiger, K. 1806. William Kirby's Familien der Bienenartigen Insekten mit Zusatzen, Nachweisungen und Bemerkungen. *Magazin für Insektenkunde* 5:28–175.
- Illiger, K. 1807. Vergleichung der Gattungen der Hautflügler, Piezata Fabr. Hymenoptera Linn. Jur. *Magazin für Insektenkunde* 6:189–199.
- Inoue, T., and S. F. Sakagami. 1993. A new name of *Trigona*. *Japanese Journal of Entomology* 61:769.
- Isensee, R. 1927. A study of the male genitalia of certain anthidiine bees. *Annals of the Carnegie Museum* 17:371–382, pl. xxxii.
- Jørgensen, P. 1909. Beobachtungen über blumenbesuch, biologie, verbreitung usw. der Bienen von Mendoza (Hym.). Teil I, Teil II. *Deutsche Entomologische Zeitschrift* 1909:53–65, 211–228.
- Jørgensen, P. 1912. Revision der Apiden der Provinz Mendoza, Republika Argentina. *Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere* 32:89–162.
- Jurine, L. 1801. In [G. W. F. Panzer], Nachricht von einem neuen entomologischen Werke, des Hrn. Prof. Jurine in Geneve. *Intelligenzblatt der Litteratur-Zeitung [Erlangen]* 1:160–165. This work was suppressed for nomenclatural purposes by Opinion 135 (Direction 4) of the Commission (1939).
- Jurine, L. 1807. *Nouvelle méthode de Classer les Hyménoptères et les Diptères*. Geneva: Paschoud. 320 + 4 pp, 14 pl.
- Kerr, W. E., J. F. Pisani, and D. Aily. 1967. Aplicação de princípios modernos a sistemática do gênero *Melipona* Illiger, com a divisão em dois subgêneros. *Papéis Avulsos de Zoologia, São Paulo* 20:135–145.
- Kirby, W. F. 1900. XII. Descriptions of the new species of Hymenoptera, in The Expedition to Sokotra. *Bulletin of the Liverpool Museums* 3:13–24.
- Kirby, W. 1802. *Monographia Apum Angliae*. Ipswich: White. Vol. 1. xxii + 258 pp. Vol. 2. 388 pp + 18 pls.
- Kirby, W. 1837. Part IV. Insects, in J. Richardson, *Fauna Boreali-Americanæ; or the Zoology of the Northern Parts of British America*. London: Longman. xxxix + 325 pp, pl. I–VIII.
- Kirby, W., and W. Spence. 1826. *An Introduction to Entomology*. Vol. 3. London: Longman. 732 pp.
- Klug, F. 1807a. *Oxaea*, eine neue Gattung aus der Ordnung der Piezaten. *Gesellschaft Naturforschender Freunde zu Berlin, Magazin für neuesten Entdeckungen in der gesammten Naturkunde* 1:261–263.
- Klug, F. 1807b. Kritische Revision der Bienengattungen in Fabricius neuem Piezatensysteme. *Magazin für Insektenkunde* 6:200–228.
- Klug, F. 1810. Einige neue Piezatengattungen. *Gesellschaft Naturforschender Freunde zu Berlin, Magazin für neuesten Entdeckungen in der gesammten Naturkunde* 4:31–45, pl. 1.
- Krombein, K. V. 1950. The aculeate Hymenoptera of Micronesia II. Colletidae, Halictidae, Megachilidae, and Apidae. *Proceedings of the Hawaiian Entomological Society* 14:101–142.
- Krombein, K. V. 1951. Additional notes on the bees of the Solomon Islands. *Proceedings of the Hawaiian Entomological Society* 14:277–295.
- Kruger, E. 1917. Zur Systematik der mitteleuropäischen Hummeln (Hym.). *Entomologische Mitteilungen* 6:55–66.
- Kruger, E. 1920. Beiträge zur Systematik und Morphologie der mitteleuropäischen Hummeln. *Zoologische Jahrbücher, Abteilung für Systematik, Geographie und Biologie der Tiere* 42:289–464.
- Kruseman, G. 1952. Subgeneric division of the genus *Bombus* Latr. *Transactions of the Ninth International Congress of Entomology*, Amsterdam 1:101–103.
- LaBerge, W. E. 1956. A revision of the bees of the genus *Melissodes* in North and Central America, Part I. *University of Kansas Science Bulletin* 37:911–1194.
- LaBerge, W. E. 1957. The genera of bees of the tribe Eucerini in North and Central America. *American Museum Novitates No. 1837*:1–44.
- LaBerge, W. E. 1958. Notes on the genus *Gaesischia* Michener, LaBerge and Moure, with descriptions of a new species and subgenus from Mexico. *Pan-Pacific Entomologist* 34:195–201.
- LaBerge, W. E. 1961. A revision of the bees of the genus *Melissodes* in North and Central America, Part III. *University of Kansas Science Bulletin* 42:283–663.
- LaBerge, W. E. 1964. Prodromus of American bees of the genus *Andrena*. *Bulletin of the University of Nebraska State Museum* 4:279–316.
- LaBerge, W. E. 1970. A new genus with three new species of eucerine bees from Mexico. *Journal of the Kansas Entomological Society* 43:321–328.
- LaBerge, W. E. 1971a. A new subgenus of *Andrena* found in California and Oregon. *Pan-Pacific Entomologist* 47:47–57.
- LaBerge, W. E. 1971b. A revision of the bees of the genus *Andrena* of the western hemisphere. Part IV. *Scapteropopsis, Xiphandrena* and *Rhaphandrena*. *Transactions of the American Entomological Society* 97:441–520.
- LaBerge, W. E. 1977. A revision of the bees of the genus *Andrena* of the western hemisphere. Part VIII. Subgenus *Thysandrena, Dasypandrena, Psammwandrena, Rhacandrena, Euandrena*, and *Oxyandrena*. *Transactions of the American Entomological Society* 103:1–143.
- LaBerge, W. E. 1986. A revision of the bees of the genus *Andrena* of the western hemisphere. Part XI. Minor subgenera and subgeneric key. *Transactions of the American Entomological Society* 111:441–567.
- LaBerge, W. E., and P. D. Hurd, Jr. 1965. A new subgenus and species of matinal *Andrena* from the flowers of *Sicyos* (Cucurbitaceae) in Mexico. *Pan-Pacific Entomologist* 41:186–193.
- LaBerge, W. E., and C. D. Michener. 1963. *Deltoptila*, a Middle American genus of anthophorine bees. *Bulletin of the University of Nebraska State Museum* 4:211–226.
- LaBerge, W. E., and D. W. Ribble. 1972. A revision of the bees of the genus *Andrena* of the western hemisphere. Part V. *Gonandrena, Geissandrena, Parandrena, Pelicandrena*. *Transactions of the American Entomological Society* 98:271–358.
- Labougle, J. M., and R. Ayala. 1985. A new subgenus and species of *Bombus* (Hymenoptera: Apidae) from Guerrero, Mexico. *Folia Entomologica Mexicana* no. 66:47–55.
- Lanham, U. N. 1949. A subgeneric classification of the new world bees of the genus *Andrena*. *University of California Publications in Entomology* 8:183–238.
- Lanham, U. N. 1950. A preoccupied subgeneric name in *Andrena*. *Entomological News* 61:140.
- Latreille, P. A. 1802a. *Histoire Naturelle des Fourmis*.... Paris: Crapelet. xvi + 445 pp., 12 pls.
- Latreille, P. A. 1802b. *Histoire Naturelle Générale et Particulière des Crustacés et des Insectes*. Vol. 3. Paris: Dufart. 467 pp.
- Latreille, P. A. 1803. [Several articles in] *Nouveau Dictionnaire d'Histoire Naturelle*.... Vol. 18. Paris: Déterville.
- Latreille, P. A. 1804. Tableau méthodique des insectes. Pp. 129–200 in *Nouveau Dictionnaire d'Histoire Naturelle*. Vol. 24. Paris: Déterville.
- Latreille, P. A. 1809. *Genera Crustaceorum et Insectorum*.... Vol. 4. Paris: Koenig. 399 pp.
- Latreille, P. A. 1810. *Considerations Générales ... des Insectes*. Paris: Schoell. 444 pp.
- Latreille, P. A. 1811. [Articles in] M. Olivier (ed.), *Encyclopédie Méthodique. Histoire Naturelle. Insectes*. Vol. 8. Paris: Agasse.
- Latreille, P. A. 1825. *Familles Naturelles du Régne Animal*.... Paris: Baillière. 570 pp.
- Latreille, P. A. 1829. Les Insectes, in G. C. L. D. Cuvier, *Règne Animal*. 2nd ed. Vol. 5. Paris: Déterville. xxiv + 556 pp.
- Laverty, T. M., R. C. Plowright, and P. H. Williams. 1984. *Digressobombus*, a new subgenus with description of the male of *Bombus digressus* (Milliron). *Canadian Entomologist* 116:1051–1056.
- Leach, W. E. 1815. Entomology, pp. 57–172. In *Brewster's Edinburgh Encyclopaedia*. Vol. 9. Edinburgh.

- Lepeletier de Saint-Fargeau, A. L. M. 1832. Observations sur l'ouvrage intitulé: *Bombi Scandinaviae monographice tractato, et, à Gustav Dahlbom. Annales de la Société Entomologique de France* 1:366–382.
- Lepeletier de Saint-Fargeau, A. L. M. 1836, 1841. *Histoire Naturelle des Insectes-Hyménoptères*. Paris: Roret. 1836, vol. 1, 1–547; 1841, vol. 2, 1–680.
- Lepeletier de Saint-Fargeau, A. L. M., and A. Serville. 1825, 1828. [Articles in] M. Diderot et al., *Encyclopédie Méthodique, Histoire Naturelle. Insectes*. Vol. 10, P. A. Latreille, ed. Paris. Pp. 1–344, 1825; pp. 345–832, 1828, according to C. D. Sherborn and B. B. Woodward, 1906, Annals and Magazine of Natural History (7)17:578.
- Liefitinck, M. A. 1955. The carpenter-bees of the Lesser Sunda Islands and Tanimbar (Hymenoptera, Apoidea). Verhandlungen der Naturforschenden Gesellschaft in Basel 66:5–32.
- Liefitinck, M. A. 1966. Notes on some anthophorine bees, mainly from the old world. Tijdschrift voor Entomologie 109:125–161.
- Liefitinck, M. A. 1968. A review of old world species of *Thyreus* Panzer (= *Crocisa* Jurine) (Hym., Apoidea, Anthophoridae) Part 4, palearctic species. Zoologische Verhandelingen no. 98:1–139, pls. 1–4.
- Liefitinck, M. A. 1972. Further studies on old world melectine bees, with stray notes on their distribution and host relationships. Tijdschrift voor Entomologie 115:253–324, 2 pls.
- Liefitinck, M. A. 1974. A review of the central and east Asiatic *Habropoda* F. Smith, with *Habrophorula*, a new genus from China. Tijdschrift voor Entomologie 117:157–224.
- Liefitinck, M. A. 1983. Notes on the nomenclature and synonymy of old world melectine and anthophorine bees. Tijdschrift voor Entomologie 126:269–284.
- Linnaeus, C. 1758. *Systema Naturae*. Vol. 1, ed. 10. Stockholm: Salvii. 824 pp.
- Linsley, E. G. 1939a. A revision of the nearctic Melectinae. Annals of the Entomological Society of America 32:429–468.
- Linsley, E. G. 1939b. Some new genera and species of epeoline and nomadine bees. Pan-Pacific Entomologist 15:1–11.
- Linsley, E. G. 1942. Notes and descriptions of some North American parasitic bees. Pan-Pacific Entomologist 18:127–132.
- Linsley, E. G., and J. W. MacSwain. 1956. Further notes on the taxonomy and biology of the andrenine bees associated with *Oenothera*. Pan-Pacific Entomologist 32:111–121.
- Linsley, E. G., and C. D. Michener. 1937. Some new genera and species of North American parasitic bees. Pan-Pacific Entomologist 13:75–84.
- Linsley, E. G., and C. D. Michener. 1939. A generic revision of the North American Nomadidae. Transactions of the American Entomological Society 65:265–305, pls. xv–xviii.
- Lucas de Oliveira, B., and J. S. Moure. 1963. Nova posição sistemática para *Rhophitulus testaceus* Ducke, 1907. Anais da Academia Brasileira de Ciências 35:575–584.
- Lutz, F. E., and T. D. A. Cockerell. 1920. Notes on the distribution and bibliography of North American bees of the families Apidae, Meliponidae, Bombidae, Euglossidae, and Anthophoridae. Bulletin of the American Museum of Natural History 42:491–641.
- Ma, T.-c. [= Maa]. 1938. The Indian species of the genus *Xylocopa* Latr. (Hymenoptera). Records of the Indian Museum 40:265–329.
- Maa, T.-c. 1939. *Xylocopa orientalis critica* (Hymen.). I. Subgenus *Bombixylocopa novum*. Lingnan Science Journal 18:155–160.
- Maa, T.-c. 1953. An inquiry into the systematics of the tribus Apidini or honeybees. Treubia 21:525–640.
- Maa, T.-c. 1954. The xylocopine bees (Insecta) of Afghanistan. Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening i Kjøbenhavn 116:189–231.
- Manning, F. 1961. A new fossil bee from Baltic amber. Verhandlungen XI. Internationaler Kongress für Entomologie [Wien, 1960] 1:306–308, pl. 5, fig. 1.
- Marikovskaya, T. P. 1976. On the systematics of the tribe Anthophorini. Entomologicheskoe Obozrenie 55:684–690 [in Russian; translation into English, Entomological Review 55:126–130].
- Marikovskaya, T. P. 1980. A new genus of bees of the family Anthophoridae. Entomologicheskoe Obozrenie 59:650–653 [in Russian; translation into English, Entomological Review 59:126–130].
- Marschall, A. F. von. 1873. *Nomenclator zoologicus continuus nomina systematica generum animalium tam viventium quam fossilium, secundum ordinem alphabeticum disposita*. Vindobonae. [i]–[vi], 1–482. [Hymenoptera, pp. 254–273.]
- Mavromoustakis, G. A. 1939. New and little-known bees of the subfamily Anthidiinae (Apoidea). Part I. Annals and Magazine of Natural History (11)3:88–97.
- Mavromoustakis, G. A. 1949. On the bees (Hymenoptera, Apoidea) of Cyprus. Part I. Annals and Magazine of Natural History (12)1(1948):541–587.
- Mavromoustakis, G. A. 1951. Further contributions to our knowledge of the Ethiopian Anthidiinae (Hymenoptera: Apoidea) and their classification. Annals and Magazine of Natural History (12)4:962–981.
- Mavromoustakis, G. A. 1953. New and little-known bees of the subfamily Anthidiinae (Apoidea). Part VI. Annals and Magazine of Natural History (12)6:834–840.
- Mavromoustakis, G. A. 1954. New and interesting bees from Israel. Bulletin of the Research Council of Israel 4:256–275.
- Mavromoustakis, G. A. 1956. On the bees (Hymenoptera, Apoidea) of Siria. Eos 32:215–230.
- Mavromoustakis, G. A. 1958. Bees (Hymenoptera, Apoidea) of Attica (Greece), Part I. Annals and Magazine of Natural History (13)1:433–447.
- Mavromoustakis, G. A. 1963a. On the bees (Hymenoptera, Apoidea) of Lebanon, Part III. Annals and Magazine of Natural History (13)5:647–655.
- Mavromoustakis, G. A. 1963b. Further contributions to our knowledge of the Ethiopian Anthidiinae (Hymenoptera: Apoidea) and their classification. Part 2. Annals and Magazine of Natural History (13)6:481–499.
- Mavromoustakis, G. A. 1963c. A new genus of parasitic bees. Annals and Magazine of Natural History (13)5[1962]:443–445.
- Mavromoustakis, G. A. 1963d. On some parasitic bees. Annals and Magazine of Natural History (13)5[1962]:751–754.
- Meade-Waldo, G. 1914a. Notes on the Hymenoptera in the collection of the British Museum, with descriptions of new species. Annals and Magazine of Natural History (8)14:450–464.
- Meade-Waldo, G. 1914b. Notes on the Apidae (Hymenoptera) in the collection of the British Museum, with descriptions of new species. Annals and Magazine of Natural History (8)13:399–405.
- Meade-Waldo, G. 1923. Hymenoptera, fam. Apidae, subfam. Prospopiidae. Pp. 1–45 in Wytsman, P. (ed.), *Genera Insectorum*. Fasc. 181. Brussels.
- Méhely, L. 1935. *Naturgeschichte der Urbinen*. Budapest: Stephaneum Nyomda és Könyvkiedő. 214 pp., 60 pls.
- Meunier, F. 1888. Megachillidae [sic]. Naturalista Siciliano 7:152.
- Michener, C. D. 1938. American bees of the genus *Heriades*. Annals of the Entomological Society of America 31:514–531.
- Michener, C. D. 1939. A revision of the genus *Ashmeadiella*. American Midland Naturalist 22:1–84.
- Michener, C. D. 1941. A generic revision of the American Osmiinae with descriptive notes on old world genera. American Midland Naturalist 26(1):147–166.
- Michener, C. D. 1942. Taxonomic observations on bees with descriptions of new genera and species (Hymenoptera: Apoidea). Journal of the New York Entomological Society 50:273–282.
- Michener, C. D. 1943. The American bees of the genus *Anthocopa* with notes on old world subgenera. Annals of the Entomological Society of America 36:49–86.
- Michener, C. D. 1944. Comparative external morphology, phylogeny, and a classification of the bees. Bulletin of the American Museum of Natural History 82:151–326.
- Michener, C. D. 1947. A revision of the American species of *Hoplitis*. Bulletin of the American Museum of Natural History 89:257–318.
- Michener, C. D. 1948a. The generic classification of the anthidiine bees. American Museum Novitates no. 1381:1–29.
- Michener, C. D. 1948b. Notes on the American bees of the genus *Melecta*. Proceedings of the Entomological Society of Washington 50:15–18.
- Michener, C. D. 1951. Superfamily Apoidea. Pp. 1043–1255 in C. F. W. Muesebeck and K. V. Krombein (eds.), *Hymenoptera of America North of Mexico—Synoptic Catalog*. Washington: United States Department of Agriculture Monograph No. 2.

- Michener, C. D. 1952. A new genus of panurgine bee from Arizona. *Journal of the Kansas Entomological Society* 25:24–28.
- Michener, C. D. 1954. Bees of Panamá. *Bulletin of the American Museum of Natural History* 104:1–176.
- Michener, C. D. 1961. A new parasitic genus of Ceratinini from Australia. *Journal of the Kansas Entomological Society* 34:178–180.
- Michener, C. D. 1962. Observations on the classification of the bees commonly placed in the genus *Megachile*. *Journal of the New York Entomological Society* 70:17–29.
- Michener, C. D. 1963. New Ceratinini from Australia. *University of Kansas Science Bulletin* 44:257–261.
- Michener, C. D. 1965a. A classification of the bees of the Australian and South Pacific regions. *Bulletin of the American Museum of Natural History* 130:1–362, pls. 1–15.
- Michener, C. D. 1965b. A generic review of the Dufoureinae of the western hemisphere. *Annals of the Entomological Society of America* 58:321–326.
- Michener, C. D. 1966a. The classification of the Diphaglossinae and North American species of the genus *Caupolicana*. *University of Kansas Science Bulletin* 46:717–751.
- Michener, C. D. 1966b. A new genus of ceratinine bees from the Red Sea area. *Journal of the Kansas Entomological Society* 39:572–576.
- Michener, C. D. 1968. Nests of some megachilid bees, with description of a new *Hoplitis*. *Journal of the Entomological Society of Southern Africa* 31:337–359.
- Michener, C. D. 1969. African genera of allodapine bees. *Journal of the Kansas Entomological Society* 42:289–293.
- Michener, C. D. 1970. Social parasites among African allodapine bees. *Zoological Journal of the Linnean Society (London)* 49:199–215, pls. 1, 2.
- Michener, C. D. 1975. Larvae of African allodapine bees. 3. The genera *Allodapula* and *Eucondylops*. *Journal of the Entomological Society of Southern Africa* 38:243–250.
- Michener, C. D. 1977. Allodapine bees of Madagascar. *American Museum Novitates* no. 2622:1–18.
- Michener, C. D. 1978a. The classification of halictine bees: Tribes and old world nonparasitic genera with strong venation. *University of Kansas Science Bulletin* 51:501–538.
- Michener, C. D. 1978b. The parasitic groups of Halictidae. *University of Kansas Science Bulletin* 51:291–339.
- Michener, C. D. 1980. The large species of *Homalictus* and related Halictinae from the New Guinea area. *American Museum Novitates* no. 2693:1–21.
- Michener, C. D. 1981. Classification of the bee family Melittidae with a review of species of Meganomiinae. *Contributions of the American Entomological Institute* 18(3):i–iii + 1–135.
- Michener, C. D. 1982. A new interpretation of fossil social bees from the Dominican Republic. *Sociobiology* 7:37–45.
- Michener, C. D. 1983. The classification of the Lithurginae. *Pan-Pacific Entomologist* 59:176–187.
- Michener, C. D. 1986a. Family-group names among bees. *Journal of the Kansas Entomological Society* 59:219–234.
- Michener, C. D. 1986b. A review of the tribes Diphaglossini and Dissoglossini. *University of Kansas Science Bulletin* 53:183–214.
- Michener, C. D. 1986c. New Peruvian genus and a generic review of Andreninae. *Annals of the Entomological Society of America* 79:62–72.
- Michener, C. D. 1989. Classification of the American Colletinae. *University of Kansas Science Bulletin* 53:622–703.
- Michener, C. D. 1990. Classification of the Apidae. *University of Kansas Science Bulletin* 54:75–153.
- Michener, C. D. 1992. Nomenclatural problems in the Meganomiinae and a review of the genus *Pseudophilanthus*. *Journal of the Kansas Entomological Society* 65:146–150.
- Michener, C. D. 1995. Some genus-group names of bees. *Journal of the Kansas Entomological Society* 67(1994):373–377.
- Michener, C. D. 1996. A review of the genera of Brachynomadini and a new South American genus. *Journal of the Kansas Entomological Society* 69:87–96.
- Michener, C. D. 1997. The identity of the type species of *Tetralonia*. *Journal of the Kansas Entomological Society*, in press.
- Michener, C. D., and R. W. Brooks. 1987. The family Melittidae in Madagascar. *Annales de la Société Entomologique de France* (n.s.)23:99–103.
- Michener, C. D., R. W. Brooks, and A. Pauly. 1990. Little-known meganomiine bees with a key to the genera. *Journal of African Zoology* 104:135–140.
- Michener, C. D., and T. L. Griswold. 1994a. The classification of old world Anthidiini. *University of Kansas Science Bulletin* 55:299–327.
- Michener, C. D., and T. L. Griswold. 1994b. The neotropical *Stelis*-like cleptoparasitic bees. *Proceedings of the Entomological Society of Washington* 96:674–678.
- Michener, C. D., W. E. LaBerge, and J. S. Moure. 1955. Some American Eucerini bees. *Dusenia* 6:213–230.
- Michener, C. D., R. J. McGinley, and B. N. Danforth. 1994. *The Bee Genera of North and Central America*. Washington: Smithsonian Institution Press. viii + 209 pp.
- Michener, C. D., and J. S. Moure. 1956. The generic positions of certain South American eucerine bees. *Dusenia* 7:277–290.
- Michener, C. D., and J. S. Moure. 1957. A study of the classification of the more primitive non-parasitic anthophorine bees. *Bulletin of the American Museum of Natural History* 112:395–452.
- Michener, C. D., and E. Ordway. 1964. Some anthidiine bees from Mexico. *Journal of the New York Entomological Society* 72:70–78.
- Michener, C. D., and G. Poinar. 1997. The bee fauna of the Dominican amber. *Journal of the Kansas Entomological Society* 69(1996 suppl.):353–361.
- Michener, C. D., and R. R. Sokal. 1957. A quantitative approach to a problem in classification. *Evolution* 11:130–162.
- Milliron, H. E. 1961. Revised classification of the bumblebees—A synopsis. *Journal of the Kansas Entomological Society* 34:49–61.
- Mitchell, T. B. 1924. New megachilid bees. *Journal of the Elisha Mitchell Scientific Society* 40:154–165.
- Mitchell, T. B. 1934. A revision of the genus *Megachile* in the Nearctic region, Part I. *Transactions of the American Entomological Society* 59:295–361, pls. XX–XXI.
- Mitchell, T. B. 1936. A revision of the genus *Megachile* in the Nearctic region, Part IV. *Transactions of the American Entomological Society* 62:117–166, pls. VIII–XI.
- Mitchell, T. B. 1943. On the classification of neotropical *Megachile*. *Annals of the Entomological Society of America* 36:656–671.
- Mitchell, T. B. 1973. *A Subgeneric Revision of the Bees of the Genus Coelioxys of the Western Hemisphere*. Raleigh: Department of Entomology, North Carolina State University. iii + 129 pp.
- Mitchell, T. B. 1980. *A Generic Revision of the Megachilinae Bees of the Western Hemisphere*. Raleigh: Department of Entomology, North Carolina State University. [ii] + 95 pp.
- Mocsáry, A. 1894. É fauna apidarum hungariae. *Természetrajzi Füzetek* 17:34–37.
- Morawitz, F. 1873a. Die Bienen Daghestans. *Horae Societas Entomologicae Rossicae* 10:129–189.
- Morawitz, F. 1873b. Nachtrag zur Bienenfauna des Gouvernements von St. Petersburg. *Horae Societas Entomologicae Rossicae* 9:151–159.
- Morawitz, F. 1875. *Mellifera Latr. Pp. 1–160 in A. P. Fedtschenko, Reisen in Turkestan, Zoogeographische Folge*. Teil V, pt. I. *Apidae Genuinae*. Moscow.
- Morawitz, F. 1876. Zur Bienenfauna der Caucassländer. *Horae Societas Entomologicae Rossicae* 12:3–69.
- Morawitz, F. 1895. Beitrag zur Bienenfauna Turkmeniens. *Horae Societas Entomologicae Rossicae* 29:1–76.
- Morice, F. D., and J. H. Durrant. 1915. The authorship and first publication of the "Jurinean" genera of Hymenoptera.... *Transactions of the Entomological Society of London* 1914:339–436.
- Motschulsky, V. 1856. Lettres... à M. Ménétries, 3. *Études Entomologiques* [Helsinki] 5:3–38, 1 pl. [Fossil bee, p. 28.]
- Moure, J. S. 1940. Apoidea neotropica. *Arquivos de Zoologia do Estado de São Paulo* 2:39–64, pls. I–III (also *Revista do Museu Paulista* 25:39–64).
- Moure, J. S. 1941a. Apoidea neotropica. III. *Arquivos do Museu Paranaense* 1:41–99, 1 pl.
- Moure, J. S. 1941b. Notas sobre abelhas do grupo *Tetrapedia* Klug. *Revista de Entomologia* [Rio de Janeiro] 12:515–521.

- Moure, J. S. 1942. Abelhas de Salobra. Papéis Avulsos do Departamento de Zoologia, São Paulo 2:291–321.
- Moure, J. S. 1943a. Abelhas de Batatais. Arquivos do Museu Paranaense 3:145–203, pl. XI.
- Moure, J. S. 1943b. Notas sobre abelhas da coleção Zikán. Revista de Entomologia [Rio de Janeiro] 14:447–484.
- Moure, J. S. 1944a. Abejas del Perú. Boletín del Museo de Historia Natural "Javier Prado" 8(28–29):67–75.
- Moure, J. S. 1944b. Apoidea da coleção do Conde Amadeu A. Barbiellini. Revista de Entomologia [Rio de Janeiro] 15:1–18.
- Moure, J. S. 1944c. Abelhas de Monte Alegre (Est. São Paulo). Papéis Avulsos do Departamento de Zoologia [São Paulo] 6:103–126.
- Moure, J. S. 1945a. Contribuição para o conhecimento dos Diphaglossinae, particularmente *Ptiloglossa*. Arquivos do Museu Paranaense 4:137–178, pl. XV.
- Moure, J. S. 1945b. Notas sobre os Epicharitina. Revista de Entomologia [Rio de Janeiro] 16:293–314.
- Moure, J. S. 1945c. Apoidea da coleção do Conde Amadeu A. Barbiellini. II. Revista de Entomologia [Rio de Janeiro] 16:394–414.
- Moure, J. S. 1946a. Contribuição para o conhecimento dos Meliponinae. Revista de Entomologia [Rio de Janeiro] 17:437–443.
- Moure, J. S. 1946b. Meliponas do Brasil. Chacaras e Quintais 74:609–612.
- Moure, J. S. 1946c. Notas sobre abelhas da sub família Chilicolinae. Pp. 243–250, pl. XII in *Livro de Homenagem a Romualdo Ferreira d'Almeida*. São Paulo: Sociedade Brasileira de Entomologia.
- Moure, J. S. 1946d. Notes sobre as mamangabas. Boletim Agrícola 4(12–13):1–32, pls. I–3.
- Moure, J. S. 1947a. Novos agrupamentos genéricos e algumas espécies novas de abelhas sulamericanas. Museu Paranaense Publicações Avulsas, no. 3:1–37.
- Moure, J. S. 1947b. Notas sobre algunas abejas de la provincia de Salta. Revista de la Sociedad Entomológica Argentina 13:218–253.
- Moure, J. S. 1948. Notas sobre algunas abejas de Tacanas, Tucumán, Argentina. Revista de Entomología [Rio de Janeiro] 19:313–346.
- Moure, J. S. 1949a. Notas sobre algunas abejas de Tacanas, Tucumán, Argentina. II. Revista de Entomología [Rio de Janeiro] 20:437–460, pls. X, XI.
- Moure, J. S. 1949b. Las especies chilenas de la sub-familia Lithurginae. Arquivos do Museu Paranaense 7:265–286, pls. II–V.
- Moure, J. S. 1950a. Contribuição para o conhecimento das espécies Brasileiras de *Hypotrigona* Cockerell. Dusenia 1:241–260.
- Moure, J. S. 1950b. Contribuição para o conhecimento do gênero *Eulaema* Lepetier. Dusenia 1:181–200.
- Moure, J. S. 1950c. Alguns agrupamentos novos de abelhas neotropicais. Dusenia 1:385–396.
- Moure, J. S. 1951a. Notas sobre Meliponinae. Dusenia 2:25–70.
- Moure, J. S. 1951b. *Ariphanarthra*, um novo gênero de Halictidae. Dusenia 2:137–140.
- Moure, J. S. 1951c. Notas sobre abelhas do antigo gênero *Pasiphae*. Dusenia 2:189–198.
- Moure, J. S. 1953a. Notas sobre Colletidae sul-americanos. Dusenia 4:61–78.
- Moure, J. S. 1953b. *Nogueirapis*, no grupo de Trigonini da região neotropical. Ciencia e Cultura 5:247–249.
- Moure, J. S. 1953c. Notas sobre Megachilidae de Bolivia, Perú y Chile. Dusenia 4:113–124.
- Moure, J. S. 1954a. Novas notas sobre abelhas do antigo gênero *Pasiphae*. Dusenia 5:165–190.
- Moure, J. S. 1954b. Notas sobre Epeolini sul-americanos. Dusenia 5:259–286.
- Moure, J. S. 1955. Notas sobre Epeolini sulamericanos. Dusenia 6:115–138.
- Moure, J. S. 1956. Tres espécies novas de Paracolletini do sul do Brasil. Dusenia 7:305–315.
- Moure, J. S. 1958. *Augochlorodes*, a new genus of Halictinae from Brasil. Journal of the Kansas Entomological Society 31:53–55.
- Moure, J. S. 1959. On the species of *Megalopta* described by F. Smith (Hymenoptera, Apoidea). Journal of the New York Entomological Society 66[1958]:179–190.
- Moure, J. S. 1960. Notes on the types of the neotropical bees described by Fabricius. Studia Entomologica 3:97–160.
- Moure, J. S. 1961. A preliminary supra-specific classification of the old world meliponine bees. Studia Entomologica 4:181–242.
- Moure, J. S. 1964a. Os espécies de *Zikanapis*, com a descrição de dois novos subgêneros e duas espécies novas. Studia Entomologica 7:417–458.
- Moure, J. S. 1964b. Two new genera of halictine bees from the Araucanian subregion of South America. Journal of the Kansas Entomological Society 37:265–275.
- Moure, J. S. 1964c. Um novo Paracolletini do litoral Paulista. Boletim da Universidade do Paraná, Zoologia 2:51–56.
- Moure, J. S. 1965. New placements for some species of *Paranthidium*. Proceedings of the Entomological Society of Washington 67:29–31.
- Moure, J. S. 1967a. A check-list of the known euglossine bees. Pp. 395–415 in *Atas do Simpósio sobre a Biota Amazônica*, Vol. 5, Zoologia.
- Moure, J. S. 1967b. A new genus and two new species of eucerine bees from South America (Hymenoptera, Apoidea). Dusenia 8:147–152.
- Moure, J. S. 1969. *Micrommatum*, novo gênero de Halictidae do Paraná. Atas da Sociedade de Biologia do Rio de Janeiro 12:247–249.
- Moure, J. S. 1972. Descrição de duas espécies novas de *Hyheus* do sul do Brasil. Revista Brasileira de Biologia 32:275–284.
- Moure, J. S. 1975. Notas sobre as espécies de *Melipona* descritas por Lepeletier em 1836 (Hymenoptera-Apidae). Revista Brasileira de Biologia 35:615–623.
- Moure, J. S. 1989a. *Camargoia*, um novo gênero neotropical de Meliponinae. Boletim do Museu Paraense Emílio Goeldi, Série Zoologia 5:71–78.
- Moure, J. S. 1989b. *Sakagamilla affabra* gen. n. e sp. n. de Meliponinae (Hymenoptera, Apidae) de Rondônia. Revista Brasileira de Zoologia 6:681–684.
- Moure, J. S. 1989c. *Glossiropoda*, novo subgênero de *Euglossa*, e duas espécies novas da Amazônia, do mesmo subgênero. Memórias do Instituto Oswaldo Cruz 84:387–389.
- Moure, J. S. 1992. *Melikerria* e *Eomekipona*, dois subgêneros novos em *Melipona* Illiger, 1806. Pp. 32–38 in *Encontro Brasileiro sobre Biologia de Abelhas e Outros Insectos Sociais*. [Naturalia, edição especial.] São Paulo: Universidade Estadual Paulista.
- Moure, J. S. 1994a. Sobre a posição sistemática de *Exomalopsis latitarsis* Friese. Revista Brasileira de Zoologia 9(1992):273–276.
- Moure, J. S. 1994b. *Lissopedia*, gen. n. de Paratetrapediini para a região neotropical, com as descrições de três espécies novas. Revista Brasileira de Zoologia 9(1992):305–317.
- Moure, J. S. 1995. *Compsoclepta fasciata*, antoforídeo parasita do nordeste da Argentina. Acta Biologica Paranaense 21:143–148.
- Moure, J. S., and J. M. F. Camargo. 1978. A fossil stingless bee from Copal. Journal of the Kansas Entomological Society 51:560–566.
- Moure, J. S., and P. D. Hurd, Jr. 1960. On the systematic position of three anthidiine bees described by Adolfo Ducke. Boletim do Museu Paraense Emílio Goeldi, Nova Série, Zoologia no. 28:1–13.
- Moure, J. S., and P. D. Hurd, Jr. 1982. On two new groups of neotropical halictine bees. Dusenia 13:46.
- Moure, J. S., and P. D. Hurd, Jr. 1987. *An Annotated Catalog of the Halictid Bees of the Western Hemisphere*. Washington: Smithsonian Institution Press. vii + 405 pp.
- Moure, J. S., and B. Lucas de Oliveira. 1962. Novo gênero de Panurginae para a América do Sul. Boletim da Universidade do Paraná, Zoologia no. 15:1–14.
- Moure, J. S., and C. D. Michener. 1955a. The bee family Fideliidae in South America. Dusenia 6:199–206.
- Moure, J. S., and C. D. Michener. 1955b. A contribution toward the classification of neotropical Eucerini. Dusenia 6:239–331.
- Moure, J. S., and S. F. Sakagami. 1984. Notes on *Pseudagapostemon*, a neotropical halictine bee genus, with descriptions of a new subgenus and two new species from southern Brazil. Dusenia 14:1–9.
- Moure, J. S., and D. Urban. 1975. *Dicranthidium* novo subgênero de *Hyanthidioides* [sic] Moure, 1947. Revista Brasileira de Biologia 35:837–842.
- Moure, J. S., and D. Urban. 1990. *Carloticola* gen. n. e *Carloticola trichura* sp. n. da Argentina. Acta Biologica Paranaense 19:89–99.
- Moure, J. S., and D. Urban. 1994. *Rhynostelis*, gen. n. e notas sobre *Hoplostelis* Dominique. Revista Brasileira de Zoologia 11:297–302.

- Newman, E. 1834. Attempted division of British insects into natural orders. *Entomological Magazine* 2:379–431.
- Noskiewicz, J. 1936. *Die Palearktischen Colletes-Arten*. Lwowie: Prace Naukowe. 532 pp., 27 pls.
- Noskiewicz, J. 1948. Remarques sur quelques espèces du genre *Megachile* de la Silésie et des pays limitrophes. *Polskie Pismo Entomologiczne* 18:31–59 [in Polish, summary in French].
- Noskiewicz, J. 1961. Beiträge zur Kenntnis der paläarktischen Arten der Gattung *Stelis*. *Polskie Pismo Entomologiczne* 31:113–133.
- Nylander, W. 1848. Adnotations in expositionem monographicam apum borealium. *Notiser ur Sallskapsets pro Fauna et Flora Fennica Förhandlinger* 1:165–282, pl. III.
- Ogloblin, A. A. 1948. Descripción de dos géneros nuevos de Paracolletini argentinos. *Notas del Museo de la Plata* 13:165–177, pls. I–IV.
- Ogloblin, A. A. 1953. Un nuevo Halictidae (Hym. Apidae [sic]): un nuevo subgénero de *Tenitosoma*. *Boletín Sociedad Entomológica Argentina* no. 2:[2–3].
- Ogloblin, A. A. 1955. Descripción de un nuevo subgénero de Anthophorinae. *Dusenia* 6:231–237.
- Ogloblin, A. A. 1956. Dos géneros nuevos de la tribu Exomalopsini (Apidae, Hym.) de la República Argentina. *Dusenia* 7:149–158.
- Osychnyuk, A. Z. 1983. A new subgenus and new species of bees of the genus *Andrena* (Hymenoptera, Andrenidae) from the asiatic part of the USSR. *Entomologicheskoe Obozrenie* 62:794–799 [in Russian; translation into English, *Entomological Review* 62:124–129].
- Osychnyuk, A. Z. 1984a. A new palearctic subgenus and a new species of genus *Andrena*. *Vestnik Zoologii* 1984(2):23–30 [in Russian].
- Osychnyuk, A. Z. 1984b. A new east-Mediterranean subgenus and a new species of *Andrena* bees. *Vestnik Zoologii* 1984(1):19–24 [in Russian].
- Packer, L. 1993. Two distinctive new species of halictine bees from high altitude in the new world tropics. *Canadian Journal of Zoology* 71:1653–1662.
- Pagliano, G., and P. Scaramozzino. 1990. Elenco dei generi di Hymenoptera del mondo. *Memoria della Società Entomologica Italiana* 68 (1989):1–210.
- Panzer, G. W. F. 1804a. *Faunae Insectorum Germanicæ*. Heft 85. Nürnberg: Felssecker. The actual date of publication may have been as early as 1801; see C. D. Sherborn, 1923, *Annals and Magazine of Natural History* (9)11:567 and Sandhouse, 1943:532.
- Panzer, G. W. F. 1804b. *Faunae Insectorum Germanicæ*. Heft 86. Nürnberg: Felssecker. According to Commission Opinion 151 (1944) the correct date for this heft is [1801–1802], but Sherborn (ref. *supra*) gives the date as 1804.
- Panzer, G. W. F. 1806. *Kritische Revision der Insektenfauna Deutschlands*. Vol. 2. Nürnberg: Felssecker. [14] + 271 pp., 2 pls.
- Panzer, G. W. F. 1809. *Faunae Insectorum Germanicæ*. Heft 107. Nürnberg: Felssecker. The actual date of publication may have been as early as 1806; see Panzer, 1804a.
- Parker, F. D., and G. E. Bohart. 1979. *Dolichostelis*, a new genus of parasitic bees. *Journal of the Kansas Entomological Society* 52:138–153.
- Pasteels, J. J. 1965. Révision des Megachilidae (Hymenoptera Apoidea) de l'Afrique Noire I. Les Genres *Creightonella* [sic], *Chalicodoma* et *Megachile* (s. str.). *Annales Musée Royal de l'Afrique Central* [Tervuren], Sciences Zoologiques No. 137. ix + 579 pp.
- Pasteels, J. J. 1966. Megachilidae (genres: *Creightonella* [sic], *Megachile* et *Chalicodoma*) peu connues ou nouvelles des régions palearctique et africaine. *Bulletin et Annales de la Société Royale d'Entomologie de Belgique* 102:1–19.
- Pasteels, J. J. 1968a. Statut, affinités et origines des Anthidiinae parasites. *Naturaliste Canadien* 95:1055–1063.
- Pasteels, J. J. 1968b. Révision des Megachilidae (Hymenoptera Apoidea) de l'Afrique Noire II. Le genre *Coelioxys*. *Annales Musée Royal de l'Afrique Central* [Tervuren], Sciences Zoologiques No. 167. [ii] + 139 pp.
- Pasteels, J. J. 1969a. La systématique générique et subgénérique des Anthidiinae (Hymenoptera, Apoidea, Megachilidae) de l'ancien monde. *Mémoires de la Société Royale d'Entomologie de Belgique* 31:1–148.
- Pasteels, J. J. 1969b. New Anthidiinae (Hymenoptera, Apoidea, Megachilidae) from the Mediterranean area and from the Near East. *Israel Journal of Entomology* 4:409–434.
- Pasteels, J. J. 1970. Espèces nouvelles de Megachilidae (Hymenoptera, Apoidea) d'Afrique Noire, I. Genères *Creightonella* Cockerell et *Chalicodoma* Lepeletier. *Revue de Zoologie et de Botanique Africaines* 82:205–232.
- Pasteels, J. J. 1972. Révision des Anthidiinae (Hymenoptera Apoidea) de la région indo-malaise. *Bulletin et Annales de la Société Royale Belge d'Entomologie* 108:72–128.
- Pasteels, J. J. 1977. Les Megachilini parasites (*Coelioxys* s. l.) d'Afrique noire. *Revue de Zoologie Africaine* 91:161–197.
- Pasteels, J. J. 1982. Les *Coelioxys* Latreille (Hymenoptera Apoidea) du groupe *afra* Lepeletier d'Europe et du proche-orient. *Bulletin et Annales de la Société Royale Belge d'Entomologie* 118:109–120.
- Pasteels, J. J. 1984. Révision des Anthidiinae (Hymenoptera, Apoidea, Megachilidae) de l'Afrique subsaharienne. *Mémoires de la Classe des Sciences, Académie Royale de Belgique* (IN-4-2)19(1):1–165.
- Patton, W. H. 1879a. Generic arrangement of the bees allied to *Melissodes* and *Anthophora*. *Bulletin of the United States Geological and Geographical Survey of the Territories* 5:471–479.
- Patton, W. H. 1879b. List of a collection of aculeate Hymenoptera made by Mr. S. W. Williston in northwestern Kansas. *Bulletin of the United States Geological and Geographical Survey of the Territories* 5:349–370.
- Pauly, A. 1980. Descriptions préliminaires de quelque sous-genres afrotropicaux nouveaux dans la famille des Halictidae. *Revue de Zoologie Africaine* 94:119–125.
- Pauly, A. 1981. *Lasioglossum (Labrohalictus) saegeri*, nouveau sous-genre et nouvelle espèce de Halictidae du Parc National de la Garamba (Zaire). *Revue de Zoologie Africaine* 95:717–720.
- Pauly, A. 1984a. *Glossodialictus wittei*, nouveau genre et nouvelle espèce de Halictides récolté au Parc National de l'Upemba (Zaire). *Revue de Zoologie Africaine* 98:703–708.
- Pauly, A. 1984b. Classification des Halictidae de Madagascar et des îles voisines I. Halictinae. *Verhandlungen der Naturforschenden Gesellschaft in Basel* 94:121–156.
- Pauly, A. 1984c. *Paradialictus*, un nouveau genre clepto-parasite récolté au Parc National des Virungas (Zaire). *Revue de Zoologie Africaine* 98:689–692.
- Pauly, A. 1984d. Contribution à l'étude des genres afrotropicaux de Nomiinae. *Revue de Zoologie Africaine* 98:693–702.
- Pauly, A. 1990. Classification des Nomiinae Africains. *Annales Musée Royal de l'Afrique Central* [Tervuren], Sciences Zoologiques no. 261:1–206.
- Pauly, A. 1991. Classification des Halictidae de Madagascar II. Nomiinae. *Annales de la Société Entomologique de France* (NS)27:287–321.
- Pérez, J. 1890. Catalogue des mellifères du sud-ouest. *Actes de la Société Linnaéenne de Bordeaux* 44:133–192.
- Pérez, J. 1897a. Quelques espèces de mégachiles nouvelles ou mal connues. *Comptes Rendus des Séances, in Actes de la Société Linnaéenne de Bordeaux* 52:lviii–lxvii.
- Pérez, J. 1897b. Sur une forme nouvelle de l'appareil buccal des hyménoptères. *Comptes Rendus de l'Académie des Sciences* [Paris] 125:259–260.
- Pérez, J. 1901. Contribution à l'étude des xylocopes. *Actes de la Société Linnaéenne de Bordeaux* (6):1–128.
- Perkins, R. C. L. 1899. Hymenoptera Aculeata [except ants]. Pp. 1–115, pls. I, II in R. C. L. Perkins and A. Forel, *Hymenoptera Aculeata*, in D. Sharp (ed.), *Fauna Hawaïensis*. Vol. 1, no. 1. London: Cambridge University Press.
- Perkins, R. C. L. 1908. Some remarkable Australian Hymenoptera. *Proceedings of the Hawaiian Entomological Society* 2:27–35.
- Perkins, R. C. L. 1912. Notes, with descriptions of new species, on aculeate Hymenoptera of the Australian Region. *Annals and Magazine of Natural History* (8)9:96–121.
- Perkins, R. C. L., and L. E. Cheesman. 1928. Part V, Hymenoptera, Fasc. 1, Apoidea, Sphecoidea, and Vespoidea. Pp. 1–31 in *Insects of Samoa and other Samoan terrestrial Arthropoda*. London: British Museum (Natural History).
- Perty, J. A. M. 1833. Fasc. 3, pp. 125–224, pl. 25–40, in *Delectus Animalium Articulatorum ... Brasiliani*. München.
- Pesenko, Y. A. 1983. Tribe Nomoidini (in the palearctic fauna), Fauna of the USSR, Insecta-Hymenoptera 17(1): 1–198 [in Russian]. Leningrad: Nauka.

- Pesenko, Y. A. 1984. A subgeneric classification of bees of the genus *Halictus* Latreille *sensu stricto*. Entomologicheskoe Obozrenie 63:340–357 [in Russian, English summary; English translation in Entomological Review 63(3):1–20].
- Pesenko, Y. A. 1986a. An annotated key to females of the palaearctic species of the genus *Lasioglossum* *sensu stricto* (Hymenoptera, Halictidae), with descriptions of new subgenera and species. Pp. 113–151 in Y. A. Pesenko (ed.), *Systematics of Hymenopterous Insects*. Trudy Zoologicheskova Instituta, Akademii Nauk SSSR 159 [in Russian].
- Pesenko, Y. A. 1986b. Systematics of the bees of the genus *Halictus* Latreille (Hymenoptera, Halictidae) with description of the 7th and 8th metasomal sterna of males: Subgenus *Tythalictus* Pesenko. Entomologicheskoe Obozrenie 65:618–632 [in Russian].
- Pesenko, Y. A., and I. M. Kerzhner. 1981. *Nomiooides* Schenck, 1866: Proposed designation of type species. Bulletin of Zoological Nomenclature 38:225–227.
- Pesenko, Y. A., and A. A. Sitsikov. 1988. Classification and phylogenetic relations of the genera of the tribe Eucerini (Hymenoptera, Anthophoridae) with two submarginal cells. Entomologicheskoe Obozrenie 67:846–860 [in Russian; English translation in Entomological Review 69:88–104 (1990)].
- Peters, D. S. 1970. *Pseudoheriades* n. gen., *Afroheriades* n. subgen., *Pseudoheriades primus* n. sp., neue Formen aus der Familie Megachilidae. Entomologische Zeitschrift 80(16):153–160.
- Peters, D. C. 1972. Drei neue Arten der Megachilidae aus Mexico. Senckenbergiana Biologica 53:373–382.
- Peters, D. S. 1978a. *Archierades* gen. n., eine verhältnismässig ursprüngliche Gattung der Megachilidae. Entomologica Germanica 4:337–343.
- Peters, D. S. 1978b. Systematik und Zoogeographie der westpaläarktischen Arten von *Osmia* Panzer 1806 s. str., *Monoosmia* Tkalc 1974 und *Orientosmia* n. subgen. Senckenbergiana Biologica 58:287–346.
- Peters, D. S. 1984. Revision der von H. Brauns beschriebenen oder behandelten afrikanischen *Heriades*- und *Osmia*-Arten. Entomofauna 5:359–387.
- Philippi, R. A. 1866. Einige Insekten von Chile. Stettiner Entomologische Zeitung 27:109–117, Taf. II.
- Piton, L.-E. 1940. *Paléontologie du Gisement Éocène de Menat (Puy-de-Dôme) (Flore et Faune)*. Clermont-Ferrand: Vallier (thesis); Paris: Lechevalier. vii + 303 pp.
- Pittioni, B. 1939. *Tanguticobombus* subg. nov. (Hymenopt., Apidae). Zoologischer Anzeiger 126:201–205.
- Pittioni, B. 1948. Beiträge zur Kenntnis Italienischer Bienen. I. Über einige Arten der Gattung *Andrena* Fabr. Bollettino dell'Istituto di Entomologia della Università di Bologna 17:46–61.
- Pittioni, B. 1949. Beiträge zur Kenntnis der Bienenfauna SO-Chinas. Eos 25:241–284.
- Pittioni, B. 1950. Die westpaläarktischen Arten der Gattung *Spatularicella* Pop. Bollettino della Società Veneziana di Storia Naturale 5:76–113.
- Popov, V. B. 1931a. Zur Kenntnis der paläarktischen Schmarotzer-hummeln (*Psithyrus* Lep.). Eos 7:131–209.
- Popov, V. B. 1931b. To the knowledge of the genera *Pasites* Jurine and *Parammabates* gen. nov. Ezhegodnik Zoologicheskovo Muzeya Akademii Nauk SSSR (Annuaire du Musée Zoologique de l'Académie des Sciences de l'URSS) 32:453–467 [in Russian, English summary].
- Popov, V. B. 1938. Notiz über die Gattung *Cheleyna* Prov. und einige Untergattungsgruppierungen der Gattung *Stelis* Panz. Konowia 17:36–41.
- Popov, V. B. 1939. Subgeneric groupings of genus *Prosops* F. Comptes Rendus (Doklady) de l'Académie des Sciences de l'URSS 25:167–170.
- Popov, V. B. 1940. A new genus of bees from Turkestan. Trudy Zoologicheskova Instituta, Akademii Nauk SSSR 6:53–60 [in Russian].
- Popov, V. B. 1947. Generic groupings of the subfamily *Dioxynae* [sic]. Entomologicheskoe Obozrenie 29:84–92 [in Russian, English summary].
- Popov, V. B. 1950a. Generic groupings of the mid-Asian bees of the subfamily Anthidiinae. Doklady Akademii Nauk SSSR 70:315–318 [in Russian].
- Popov, V. B. 1950b. Concerning the genus *Amegilla* Friese. Entomologicheskoe Obozrenie 31:257–261 [in Russian].
- Popov, V. B. 1951. The parasitic bee genus *Ammobates* Latr. I. Tribes *Ammobatini* and *Pasitini*, their size and taxonomic position. Trudy Instituta Zoologii, Akademii Nauk SSSR 9:895–949 [in Russian].
- Popov, V. B. 1952. Bee fauna (Hymenoptera, Apoidea) of southwestern Turkmeni and its ecological significance. Trudy Zoologicheskova Instituta, Akademii Nauk SSSR 10:61–117 [in Russian].
- Popov, V. B. 1955a. A new subgenus of bees of the genus *Heriades*. Entomologicheskoe Obozrenie 34:280–286 [in Russian].
- Popov, V. B. 1955b. On the parasitic genus *Radoszkowskiana* (Hymenoptera, Megachilidae) and its origins. Zoologicheskii Zhurnal 34:547–556 [in Russian].
- Popov, V. B. 1955c. Generic groupings of the palearctic Melectinae. Trudy Zoologicheskova Instituta, Akademii Nauk SSSR 21:321–334 [in Russian].
- Popov, V. B. 1956. New and little-known bees from central Asia. Entomologicheskoe Obozrenie 35:159–171 [in Russian].
- Popov, V. B. 1957. On the genera *Moravitzella*, gen. nov., and *Trilia* Vach. Entomologicheskoe Obozrenie 36:916–924 [in Russian].
- Popov, V. B. 1958. On three subgenera of the genus *Andrena*. Trudy Vsesoyuznovo Entomologicheskovo Obshchestva (Horae Societatis Entomologicae Unionis Sovieticae) 46:109–161 [in Russian].
- Popov, V. B. 1962. New genera of bees from middle Asia. Trudy Instituta Zoologii, Akademii Nauk SSSR 30:291–309 [in Russian].
- Popov, V. B. 1963. A new genus of Megachilidae (Hymenoptera) from central Asia. Zoologicheskii Zhurnal 42:865–869 [in Russian, English summary].
- Popov, V. B. 1964. On the bee genera *Trachusa* Panzer and *Trachusomimus*, gen. n. Entomologicheskoe Obozrenie 43:405–417 [in Russian; English translation, Entomological Review 43:207–214].
- Popov, V. B., and D. Guiglia. 1936. Note sopra i gen. *Ctenoplectra* Sm. e *Macropis* Panz. Annali del Museo Civico di Storia Naturale di Genova 59:275–288.
- Provancher, L. 1882. Faune Canadienne. Les Insectes Hyménoptères. Naturaliste Canadien 13:225–242.
- Provancher, L. 1885–1889. *Additions et Corrections au Volume H de la Faune Entomologique du Canada Traitant des Hyménoptères*. Quebec: Darveau. Pp. 1–475. [The parts on bees were published in 1888.]
- Quijilis P. M. 1927. Los ápidos de España. Genero *Bombus* Latr. Trabajos del Laboratorio de Historia Natural de Valencia 16:1–119, 10 pl.
- Radoszkowski, O. 1865. Tribu des Mélectides. Horae Societatis Entomologicae Rossicae 3:53–60.
- Radoszkowski, O. 1868. Materiaux pour servir à l'étude des insectes de la Russie IV. Notes sur quelques Hyménoptères de la tribu des Apides. Horae Societatis Entomologicae Rossicae 5:73–90, pl. III.
- Radoszkowski, O. 1872a. In Séance du 3 (15) Mai. Horae Societatis Entomologicae Rossicae 8:Bulletin pp. xv–xviii.
- Radoszkowski, O. 1872b. Supplément indispensable à l'article publié par M. Gerstaeker en 1869, sur quelques genres d'Hyménoptères. Bulletin de la Société Imperiale des Naturalistes de Moscou 45:1–40, pl. 1.
- Radoszkowski, O. 1874a. Supplément indispensable à l'article publié par M. Gerstaeker en 1869, sur quelques genres d'Hyménoptères. Bulletin de la Société Imperiale des Naturalistes de Moscou 46(3)(1873):133–151, 1 pl. [This issue was misnumbered vol. 47, which otherwise does not exist according to D. B. Baker, in litt., 1992; he also provided the actual year of publication as 1874.]
- Radoszkowski, O. 1874b. Supplement indispensable à l'article publié par M. Gerstaeker in 1869, sur quelques genres d'hyménoptères. Bulletin de la Société Imperiale des Naturalistes de Moscou 48(1)(1873):132–164.
- Radoszkowski, O. 1884. Quelques nouveaux Hyménoptères d'Amérique. Horae Societatis Entomologicae Rossicae 18:17–22, 1 pl.
- Radoszkowski, O. 1886. Faune Hyménoptérologique Transcaspienne. Horae Societatis Entomologicae Rossicae 20:3–56, pls. 1–11.
- Radoszkowski, O. 1891. Revision des armures copulatrices des males des genres *Cilissa* et *Pseudocilissa*. Horae Societatis Entomologicae Rossicae 25:236–243.
- Radoszkowski, O. 1893. Fauna Hyménoptérologique Transcaspienne. Horae Societatis Entomologicae Rossicae 27:38–81.
- Rafinesque, C. S. 1814. *Principes Fondamentaux de Zoologie...* Palermo. 52 pp.

- Rafinesque, C. S. 1815. *Analyse de la Nature....* Palermo. 224 pp.
- Rayment, T. 1930a. *Microglossa* and *Melitribus*, new genera of Australian bees. Proceedings of the Royal Society of Victoria (n.s.)42:211–220, pl. 21.
- Rayment, T. 1930b. New and remarkable bees. Proceedings of the Royal Society of Victoria (NS)43:42–61.
- Rayment, T. 1931. Bees in the collections of the Western Australian Museum and the Agricultural Department, Perth. Journal of the Royal Society of Western Australia 17:157–190.
- Rayment, T. 1935. *A Cluster of Bees*. Sydney: Endeavour. 752 pp.
- Rayment, T. 1950. New bees and wasps. Part XIII. Victorian Naturalist 67:20–25.
- Rayment, T. 1954. Remarkable bees from the rain forest. Australian Zoologist 12:46–56.
- Rayment, T. 1959a. A new genus of bees in the family Colletidae. Australian Zoologist 12:324–329, pl. 38.
- Rayment, T. 1959b. A new and remarkable colletid bee. Australian Zoologist 12:334–336, pl. 11.
- Rebmann, O. 1967. Beitrag zur Kenntnis der Gattung *Megachile* Latr. (Hym., Apidae): Subgenus *Eutricharaea* Thoms. und *Neotricharaea* nov. subg. Entomologische Zeitschrift 77:33–38.
- Rebmann, O. 1970. 6. Beitrag zur Kenntnis der Gattung *Megachile* Latr. Nachrichtenblatt der Bayerischen Entomologen 19:37–47.
- Reed, E. C. 1892. Revision de las abejas chilenas descritas en la obra de Gay. Actes de la Société Scientifique du Chili (Santiago de Chile) 2:223–239.
- Reed, E. C. 1894. Entomología [sic] Chilena. Anales de la Universidad [Santiago, Chile] 85:599–653.
- Reinig, W. F. 1930. Untersuchungen zur Kenntnis der Hummelfauna des Pamir-Hochlandes. Zeitschrift für Morphologie und Ökologie der Tiere 17:68–123.
- Ribble, D. W. 1968a. Revisions of two subgenera of *Andrena*: *Micrandrena* Ashmead and *Derandrena*, new subgenus. Bulletin of the University of Nebraska State Museum 8:237–394.
- Ribble, D. W. 1968b. A new subgenus, *Belandrena*, of the genus *Andrena*. Journal of the Kansas Entomological Society 41:220–236.
- Richards, O. W. 1929. A revision of the humble-bees allied to *Bombus orientalis* Smith, with the description of a new subgenus. Annals and Magazine of Natural History (10)3:378–386.
- Richards, O. W. 1935. Notes on the nomenclature of the aculeate Hymenoptera, with special reference to the British genera and species. Transactions of the Royal Entomological Society of London 83:143–176.
- Richards, O. W. 1968. The subgeneric divisions of the genus *Bombus* Latreille. Bulletin of the British Museum (Natural History), Entomology 22:211–276.
- Ritsema, C. 1873. Beschrijving van een nieuw Hymenopteren-genus uit de onder-familie der Andrenidae Acutilingues. Tijdschrift voor Entomologie 16:224–228, pl. 10.
- Ritsema, C. 1874. [Zodion, Hymenoptera, etc.]. Tijdschrift voor Entomologie 17:lxviii–lxxv.
- Roberts, R. B., and R. W. Brooks. 1987. Agapostemonine bees of Mesoamerica (Hymenoptera: Halictidae). University of Kansas Science Bulletin 53:357–392.
- Robertson, C. 1897. North American bees—Descriptions and synonyms. Transactions of the Academy of Science of St. Louis 7:315–356.
- Robertson, C. 1900. Some Illinois bees. Transactions of the Academy of Science of St. Louis 10:47–55.
- Robertson, C. 1901. Some new or little-known bees. Canadian Entomologist 33:229–231.
- Robertson, C. 1902a. Synopsis of Andreninae. Transactions of the American Entomological Society 28:187–194.
- Robertson, C. 1902b. Some new or little-known bees, IV. Canadian Entomologist 34:321–331.
- Robertson, C. 1902c. Synopsis of Halictinae. Canadian Entomologist 34:243–250.
- Robertson, C. 1902d. Some new or little-known bees.—II. Canadian Entomologist 34:48–49.
- Robertson, C. 1903a. Synopsis of Megachilidae and Bombinae. Transactions of the American Entomological Society 29:163–178.
- Robertson, C. 1903b. Synopsis of Sphecodinae. Entomological News 14:103–107.
- Robertson, C. 1903c. Synopsis of Epeolinae. Canadian Entomologist 35:284–288.
- Robertson, C. 1903d. Synopsis of Nomadinae. Canadian Entomologist 35:172–179.
- Robertson, C. 1904. Synopsis of Anthophila. Canadian Entomologist 36:37–43.
- Robertson, C. 1905. Synopsis of Euceridae, Emphoridae and Anthophoridae. Transactions of the American Entomological Society 31:365–372.
- Robertson, C. 1918a. Some genera of bees. Entomological News 29:91–92.
- Robertson, C. 1918b. Erroneous generic determinations of bees. Science (n.s.)48:368–369.
- Robertson, C. 1922. Synopsis of Panurgidae. Psyche 29:159–173.
- Rodeck, H. G. 1945. Two new subgenera of *Nomada* Scopoli. Entomological News 56:179–181.
- Rodeck, H. G. 1947. *Laminonoma*, a new subgenus of *Nomada*. Annals of the Entomological Society of America 40:266–270.
- Rohwer, S. A. 1911. A new genus of nomadine bees. Entomological News 22:24–27.
- Roig-Alsina, A. 1987. The classification of the Caenoprosopidini. Journal of the Kansas Entomological Society 60:305–315.
- Roig-Alsina, A. 1989. The tribe Osirini, its scope, classification, and revisions of the genera *Parepeolus* and *Osirinus*. University of Kansas Science Bulletin 54:1–23.
- Roig-Alsina, A. 1991. Cladistic analysis of the Nomadinae s. str. with description of a new genus. Journal of the Kansas Entomological Society 64:23–37.
- Roig-Alsina, A. 1994. *Meliphilopsis*, a new genus of emphorine bees, and notes on the relationships among the genera of Emphorina. Reichenbachia 30:181–188.
- Roig-Alsina, A., and C. D. Michener. 1993. Studies of the phylogeny and classification of long-tongued bees. University of Kansas Science Bulletin 55:124–162.
- Romand, B. de. 1840. Sur l'Hyménoptère nommé *Acanthopus Goryi* (voy. cette Revue, 1840, p. 248). Revue Zoologique par la Société Cuvierienne 1840:335–336.
- Romand, B. de. 1841. Notice sur divers insectes Hyménoptères de la famille des mellifères. Magazin de Zoologie (2)3:1–8, pls. 68–70.
- Romankova, T. G. 1988. A new far-eastern bee of the tribe Anthidiini. Vestnik Zoologii 1988(4):25–30.
- Roubik, D. W., J. A. L. Segura, and J. M. F. de Camargo. 1997. New stingless bee genus endemic to Central American cloud forests: Phylogenetic and biogeographical implications. Systematic Entomology 21:101–114.
- Rozen, J. G., Jr. 1958. Monographic study of the genus *Nomadopsis* Ashmead. University of California Publications in Entomology 15:i–iv + 1–202.
- Rozen, J. G., Jr. 1992. Systematics and host relationships of the cuckoo bee genus *Oreopasites*. American Museum Novitates no. 3046:1–56.
- Rozen, J. G., Jr., and L. Ruz. 1995. South American panurgine bees (Andrenidae: Panurginae), Part II. Adults, immature stages, and biology of *Neffapis longilingua*, a new genus and species with an elongate glossa. American Museum Novitates no. 3136:1–15.
- Ruz, L. 1980. *Pseudosarus*, nuevo género de Panurginae Chileno. Revista Chilena de Entomología 10:25–28.
- Ruz, L. 1991. Classification and phylogenetic relationships of the panurgine bees: The Calliopsini and allies. University of Kansas Science Bulletin 54:209–256.
- Ruz, L., and J. G. Rozen, Jr. 1993. South American panurgine bees (Apoidea: Andrenidae: Panurginae), Part I. Biology, mature larva, and description of a new genus and species. American Museum Novitates no. 3057:1–12.
- Ruz, L., and H. Toro. 1983. Revision of the bee genus *Liphanthus*. University of Kansas Science Bulletin 52:235–299.
- Sakagami, S. F. 1975. Stingless bees (excl. *Tetragonula*) from the continental southeast Asia in the collection of the Bernice P. Bishop Museum,

- Honolulu. Journal of the Faculty of Science, Hokkaido University, ser. VI, Zoology 20:49–76.
- Sakagami, S. F. 1978. *Tetragonula* stingless bees of the continental Asia and Sri Lanka. Journal of the Faculty of Science, Hokkaido University, ser. VI, Zoology 21:165–247.
- Sakagami, S. F., and C. D. Michener. 1987. Tribes of Xylocopinae and origin of the Apidae. Annals of the Entomological Society of America 80:439–450.
- Sakagami, S. F., and K. Yoshikawa. 1961. Bees of Xylocopinae and Apinae collected by the Osaka City University biological expedition to southeast Asia 1957–58, with some biological notes. Nature and Life in Southeast Asia [Tokyo] 1:409–444.
- Sandhouse, G. A. 1937. The bees of the genera *Augochlora*, *Augochloropsis* and *Augochlorella* (Hymenoptera; Apoidea) occurring in the United States. Journal of the Washington Academy of Sciences 27:65–79.
- Sandhouse, G. A. 1939. The North American bees of the genus *Osmia*. Memoirs of the Entomological Society of Washington 1:[ii] + 1–167.
- Sandhouse, G. A. 1943. The type species of the genera and subgenera of bees. Proceedings of the United States National Museum 92:519–619.
- Sanssouci, H. de. 1890. *Histoire Naturelle des Hyménoptères* in A. Granddidier, *Histoire Physique, Naturelle et Politique de Madagascar*. Vol. 20. Paris: Imprimerie Nationale. xxi + 590 pp., 27 pls.
- Schenck, A. 1861. Die Nassauischen Bienen. Jahrbücher des Vereins für Naturkunde im Herzogthum Nassau 14:1–414 [for date, see Michener, 1986a].
- Schenck, A. 1866. Verzeichniss der naussauischen Hymenoptera aculeata mit Hinzufügung der übrigen deutschen Arten. Berliner Entomologische Zeitschrift 10:317–369.
- Schenck, A. 1869. Beschreibung der nassauischen Bienen, Zweiter Nachtrag. Jahrbücher des Nassauischen Vereins für Naturkunde 21–22:1[269]–114[382]. [Preprint, dated 1868, published 1869, pp. 1–114; Jahrbücher for 1867–68, published in 1870, pp. 269–382. For dates of Schenck's works, see Michener, 1986a.]
- Schenck, A. 1873. Ueber einige streitige und zweifelhafte Bienen-Arten. Berliner Entomologische Zeitschrift 17:243–259.
- Schmiedeknecht, H. L. O. 1885–1886. *Apidae Europaeae (Die Bienen Europa's)*, Vol. 2. Berlin: Friedländer. [iv] + 1–205 [867–1071] + [2, index], pls. 16, 17. [Pp. 1–110 published in 1885, 111–205 in 1886.]
- Schrottky, C. 1901. Biologische Notizen solitärer Bienen von S. Paulo (Brasilien). Allgemeine Zeitschrift für Entomologie 6:209–216.
- Schrottky, C. 1902a. Ensaio sobre as abelhas solitárias do Brazil. Revista do Museo Paulista 5:330–613, pls. XII–XIV.
- Schrottky, C. 1902b. Hyménoptères nouveau de l'Amérique Méridionale. Anales del Museo Nacional de Buenos Aires 7:309–315.
- Schrottky, C. 1906a. Neue und wenig bekannte südamerikanische Bienen. Zeitschrift für systematische Hymenopterologie und Dipterologie 6:305–316.
- Schrottky, C. 1906b. Zur Synonymie der Apiden. Zeitschrift für systematische Hymenopterologie und Dipterologie 6:115–118.
- Schrottky, C. 1909a. Nuevos himenópteros sudamericanos. Revista del Museo de La Plata 16:137–149.
- Schrottky, C. 1909b. Synonymische Bemerkungen über einige südamerikanische Halictinae. Deutsche Entomologische Zeitschrift 1909:479–485.
- Schrottky, C. 1909c. Himenópteros de Catamarca. Anales de la Sociedad Científica Argentina 68:233–272.
- Schrottky, C. 1909d. Hymenoptera nova. Anales de la Sociedad Científica Argentina 67:209–228.
- Schrottky, C. 1910. Berichtigung (Hym.). Deutsche Entomologische Zeitschrift 1910:540.
- Schrottky, C. 1911. Descrição de abelhas novas do Brazil e de regiões vizinhas. Revista do Museo Paulista 8:71–88.
- Schrottky, C. 1913. La distribución geográfica de los Himenópteros argentinos. Anales de la Sociedad Científica Argentina 75:115–144, 180–286.
- Schrottky, C. 1914. Einige neue Bienen aus Sud-Amerika. Deutsche Entomologische Zeitschrift 1914:625–630.
- Schrottky, C. 1920. Himenópteros nuevos o poco conocidos sudamericanos. Revista do Museo Paulista 12:179–227.
- Schulz, W. A. 1906. *Spolia Hymenopterologica*. Paderborn: Pape. Pp. 1–356.
- Schulz, W. A. 1911. Zweihundert alte Hymenoptera. Zoologische Annalen, Würzburg 4:1–220.
- Schwammlberger, K.-H. 1971. Zwei neue Bienen-Arten aus Iran. Stuttgarter Beiträge zur Naturkunde no. 255:1–4.
- Schwarz, H. F. 1938. The stingless bees (Meliponidae) of British Guiana and some related forms. Bulletin of the American Museum of Natural History 74:437–508, pl. LII–LXXI.
- Schwarz, H. F. 1939a. The Indo-Malayan species of *Trigona*. Bulletin of the American Museum of Natural History 76:83–141.
- Schwarz, H. F. 1939b. A substitute name for *Patera* Schwarz. Entomological News 50:23.
- Schwarz, H. F. 1940. Additional species and records of stingless bees (Meliponidae) from British Guiana based on specimens collected by the Terry-Holden Expedition. American Museum Novitates no. 1078:1–12.
- Schwarz, H. F. 1948. Stingless bees (Meliponidae) of the western hemisphere. Bulletin of the American Museum of Natural History 90:i–xvii + 1–546.
- Schwarz, M. 1966. Beitrag zur Subfamilie Nomadinae. Polskie Pismo Entomologiczne 36:383–394.
- Scopoli, J. A. 1770. *Annus Historico Naturalis. Annus IV*. Lipsiae: Hilscher. 150 pp., 2 pl.
- Shinn, A. F. 1967. A revision of the bee genus *Calliopsis* and the biology and ecology of *C. andreniformis*. University of Kansas Science Bulletin 46:753–936.
- Shuckard, W. E. 1840. [Bees]. Pp. 158–170 in W. Swainson and W. E. Shuckard, *On the History and Natural Arrangement of Insects*. London.
- Sichel, J. 1867. Hymenoptera mellifera, in Reise der Österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859..., Zoologischer Theil 2:143–156.
- Silveira, F. A. 1995. Phylogenetic relationships and classification of Exomalopsini with a new tribe Teratognathini. University of Kansas Science Bulletin 55:425–454.
- Sinha, R. N. 1958. A subgeneric revision of the genus *Osmia* in the western hemisphere. University of Kansas Science Bulletin 39:211–261.
- Sitdikov, A. A., and Y. A. Pesenko. 1988. A subgeneric classification of bees of the genus *Eucera* Scopoli (Hymenoptera, Anthophoridae) with a scheme of the phylogenetic relationships between the subgenera. Trudy Zoologicheskii Institut, Akademii Nauk SSSR 175:75–101 [in Russian].
- Skorikov, A. S. 1914a. Les formes nouvelles des bourdons. Russkoe Entomologicheskoe Obozrenie 14:119–129 [in Russian].
- Skorikov, A. S. 1914b. Contribution à la faune des bourdons de la partie méridionale de la province maritime. Russkoe Entomologicheskoe Obozrenie 14:398–407 [in Russian].
- Skorikov, A. S. 1922a. The bumblebees of the Petrograd district. Petrogradskii Agronomicheskii Institut, Entomologicheskaya Stantsiya. Fauna Petrogradskoi Gubernii 2(c)no. 11:1–51 [in Russian].
- Skorikov, A. S. 1922b. Les Bourdons de la faune paléarctique, Partie 1, Biologie générale. Izvestiya Severnoi Oblastnoi Stantsii Zashchity Rastnij o Vreditelei (Bulletin de la Station Régionale Protectrice des Plantes à Petrograd) 4:1–160, 15 maps.
- Skorikov, A. S. 1933a. Zur Hummelfauna Japans und seiner Nachbarlandes. Mushi 6:53–65, 2 fig.
- Skorikov, A. S. 1933b. Zur Fauna und Zoogeographie der Hummeln des Himalaya. Doklady Akademii Nauk SSSR 5:243–248.
- Skorikov, A. S. 1937. Die grönländischen Hummeln im Aspekte der Zirkumpolarfauna. Entomologiske Meddelelser 20:37–64.
- Skorikov, A. S. 1938a. Zoogeographic uniformity of the bumblebee fauna of the Caucasus, Iran and Anatolia. Entomologicheskoe Obozrenie 27:145–151 [in Russian, German summary].
- Skorikov, A. S. 1938b. Vorläufige Mitteilung über die Hummelfauna Burmas. Arkiv for Zoologi 30B:1–3.
- Sladen, F. W. L. 1915. The bee genus *Thrinchostoma* in India. Canadian Entomologist 47:213–215.
- Sladen, F. W. L. 1916a. Bees of Canada—Fam. Megachilidae. Canadian Entomologist 48:269–272.
- Sladen, F. W. L. 1916b. Canadian species of the bee genus *Stelis* Panz. Canadian Entomologist 48:312–314.

- Smith, F. 1853. Catalogue of Hymenopterous Insects in the Collection of the British Museum. Part 1. London: British Museum. Pp. [i] + 1–198, pls. i–vi.
- Smith, F. 1854. Catalogue of Hymenopterous Insects in the Collection of the British Museum. Part 2. London: British Museum. Pp. 199–465, pls. viii–xii.
- Smith, F. 1858. Catalogue of the hymenopterous insects collected at Sarawak, Borneo; Mount Ophir, Malacca; and at Singapore by A. R. Wallace. Journal of the Proceedings of the Linnean Society of London, Zoology 2(1857):42–180, pls. 1, 2.
- Smith, F. 1861. Descriptions of new genera and species of exotic Hymenoptera. Journal of Entomology [London] 1:146–155.
- Smith, F. 1865. Descriptions of some new species of hymenopterous insects belonging to the families Thynnidae, Masaridae and Apidae. Transactions of the Entomological Society of London (3)2:389–399, pl. 21.
- Smith, F. 1868a. Descriptions of aculeate Hymenoptera from Australia. Transactions of the Entomological Society of London 1868:231–258.
- Smith, F. 1968b. [A new name for *Oestropsis*.] Proceedings of the Entomological Society of London, p. xxxix.
- Smith, F. 1875. Descriptions of new species of Indian aculeate Hymenoptera, collected by Mr. G. R. James Rothney, member of the Entomological Society. Transactions of the Entomological Society of London 1875:33–50.
- Smith, F. 1879. Descriptions of New Species of Hymenoptera in the Collection of the British Museum. London: British Museum. xxi + 240 pp.
- Snelling, R. R. 1956. Bees of the genus *Centris* in California. Pan-Pacific Entomologist 32:1–8.
- Snelling, R. R. 1966. Studies on North American bees of the genus *Hylaeus* 2. Description of a new subgenus and species. Proceedings of the Biological Society of Washington 79:139–144.
- Snelling, R. R. 1967. Description of a new subgenus of *Osmia*. Bulletin of the Southern California Academy of Sciences 66:103–108.
- Snelling, R. R. 1974. Notes on the distribution and taxonomy of some North American *Centris*. Contributions in Science, Natural History Museum of Los Angeles County no. 259:1–41.
- Snelling, R. R. 1982. The taxonomy of some neotropical *Hylaeus* and descriptions of new taxa. Bulletin of the Southern California Academy of Sciences 81:1–25.
- Snelling, R. R. 1984. Studies on the taxonomy and distribution of American centridine bees. Contributions in Science, Natural History Museum of Los Angeles County no. 347:1–69.
- Snelling, R. R. 1985. The systematics of the hylaeine bees (Hymenoptera: Colletidae) of the Ethiopian zoological region: The genera and subgenera with revisions of the smaller groups. Contributions in Science, Natural History Museum of Los Angeles County no. 361:1–33.
- Snelling, R. R. 1986. Contributions toward a revision of the new world nomadine bees: A partitioning of the genus *Nomada*. Contributions in Science, Natural History Museum of Los Angeles County no. 376:1–32.
- Snelling, R. R. 1990. A review of the native North American bees of the genus *Chalicodoma*. Contributions in Science, Natural History Museum of Los Angeles County no. 421:1–39.
- Snelling, R. R., and R. W. Brooks. 1985. A review of the genera of cleptoparasitic bees of the tribe Ericocini. Contributions in Science, Natural History Museum of Los Angeles County no. 369:1–34.
- Spinola, M. 1808. *Insectorium Liguria Species Novae aut Rariores*. Vol. 2. Genuae. ii + 262 pp.
- Spinola, M. 1838. Compte-rendu des Hyménoptères, recueillis par M. Fischer pendant son voyage en Egypte. Annales de la Société Entomologique de France 7:437–546.
- Spinola, M. 1843. Sur quelques Hyménoptères peu connus, recueillis en Espagne, pendant l'année 1842, par M. Victor Ghiliani, voyageur-naturaliste. Annales de la Société Entomologique de France (2)1:111–144.
- Spinola, M. 1851. Hyménopteros. Pp. 153–569 in Gay, C., *Historia Fisica y Politica de Chile*. Zoologia. Vol. 6. Paris: casa del autor.
- Spinola, M. 1853. Compte rendu des hyménoptères inédits provenants du voyage entomologique de M. Ghiliani dans le Para en 1846. Memorie della Reale Accademia delle Scienze di Torino (2)13:19–94.
- Stoeckhert, F. K. 1954. Fauna Apoideorum Germaniae. Abhandlungen der Bayerischen Akademie der Wissenschaften (n.f.)65:1–87. (Anhang by H. Bischoff, pp. 70–73.)
- Strand, E. 1910. Apidologisches aus dem Naturhistorischen Museum zu Wiesbaden. Jahrbücher des Nassauischen Vereins für Naturkunde 63:37–45.
- Strand, E. 1913a. Apidae von Ceylon, gesammelt 1899 von Herrn. Dr. W. Horn. Archiv für Naturgeschichte, Abt. A 79(2):135–150.
- Strand, E. 1913b. H. Sauter's Formosa-Ausbeute, Apidae I. Supplementa Entomologica no. 2:23–67.
- Strand, E. 1914. H. Sauter's Formosa-Ausbeute, Apidae III. Archiv für Naturgeschichte, Abt. A 80(1):136–144.
- Strand, E. 1921. Apidologisches, insbesondere über paläarktische *Andrena*-Arten, auf Grund von Material des Deutschen Entomologischen Museums. Archiv für Naturgeschichte, Abt. A 87(3):266–304.
- Strand, E. 1926. Miscellanea nomenclatorica zoologica et paleontologica. Archiv für Naturgeschichte, Abt. A 92(8):30–75.
- Strand, E. 1932. Miscellanea nomenclatorica zoologica et paleontologica. Folia Zoologica et Hydrobiologica 4:193–196.
- Swenk, M. H. 1907. The bees of Nebraska—III. Entomological News 18:293–300.
- Taschenberg, E. 1883. Die Gattungen der Bienen (Anthophila). Berliner Entomologische Zeitschrift 27:37–100.
- Thomson, C. G. 1872. *Skandinaviens Hymenoptera*. Vol. 2. Lund: Berling. Pp. 1–286.
- Thorp, R. W., D. S. Horning, Jr., and L. L. Dunning. 1983. Bumble bees and cuckoo bumble bees of California. Bulletin of the California Insect Survey 23:i–viii + 1–79 pp.
- Timberlake, P. H. 1939. New species of bees of the genus *Dufourea* from California (Hymenoptera, Apoidea). Annals of the Entomological Society of America 32:395–414.
- Timberlake, P. H. 1941. Ten new species of *Stelis* from California. Journal of the New York Entomological Society 49:123–137.
- Timberlake, P. H. 1952a. Descriptions of new species of *Nomadopsis* from California and Texas, and of a new allied genus from South America. Annals of the Entomological Society of America 45:104–118.
- Timberlake, P. H. 1952b. A new name for the bee genus *Ruizella*. Annals of the Entomological Society of America 45:528.
- Timberlake, P. H. 1953. Erratum. Annals of the Entomological Society of America 46:598.
- Timberlake, P. H. 1954. A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific coast, Part I. University of California Publications in Entomology 9:345–432.
- Timberlake, P. H. 1955. A new genus for two new species of dufoureine bees from California. Pan-Pacific Entomologist 31:105–108.
- Timberlake, P. H. 1956. A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific coast, Part II. University of California Publications in Entomology 11:247–350.
- Timberlake, P. H. 1960. A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific coast, Part IV. University of California Publications in Entomology 17:1–156.
- Timberlake, P. H. 1967. New species of *Pseudopanurgus* from Arizona. American Museum Novitates no. 2298:1–23.
- Timberlake, P. H. 1969. *Metapsaenithia*, a new panurgine bee genus. Entomological News 80:89–92.
- Timberlake, P. H. 1980. Review of North American *Exomalopsis*, Parts I–IV. University of California Publications in Entomology 86:i–vi + 1–158.
- Titus, E. S. G. 1901. A new genus in the Coelioxinae [sic]. Canadian Entomologist 33:256.
- Titus, E. S. G. 1904a. Notes on Osmiinae with descriptions of new genera and species. Journal of the New York Entomological Society 12:22–27.
- Titus, E. S. G. 1904b. Some new Osmiinae in the United States National Museum. Proceedings of the Entomological Society of Washington 6:98–102.
- Titus, E. S. G. 1906. Some notes on the Provancher Megachilidae. Proceedings of the Entomological Society of Washington 7:149–165.
- Tkalčů, B. 1966. *Metallinella* gen. n. der Familie Megachilidae. Acta Entomologica Bohemoslovaca 63:200–202.
- Tkalčů, B. 1967. Bemerkungen zur Taxonomie einiger paläarktischer Arten der Familie Megachilidae. Acta Entomologica Bohemoslovaca 64:91–104.

- Tkalcù, B. 1969. Beiträge zur Kenntnis der Fauna Afghanistans—*Chalicodoma* Lep., Megachilidae, Apoidea. Acta Musei Moraviae 54:347–384, 6 unnumbered plates.
- Tkalcù, B. 1971. *Xenothalicodoma, nomen novum*. Bulletin de la Société Entomologique de Mulhouse 1971:34.
- Tkalcù, B. 1972. Arguments contre l'interprétation traditionnelle de la phylogénie des abeilles. Bulletin de la Société Entomologique de Mulhouse, Apr.–June, 1972:17–28.
- Tkalcù, B. 1974a. Ergebnisse der Albanien-Expedition 1961 des "Deutschen Entomologischen Institutes," Hymenoptera: Apoidea V (Megachilidae). Beiträge zur Entomologie [Berlin] 24:323–348.
- Tkalcù, B. 1974b. Revision und Klassifikation der bisher zur Untergattung *Hoplosmia* Thomson gestellten *Anthocopa*-Arten. Acta Entomologica Bohemoslovaca 71:114–135.
- Tkalcù, B. 1975a. Die *Osmia*-Arten der Untergattung *Hemiosmia* subgen. n. Acta Entomologica Bohemoslovaca 72:34–49.
- Tkalcù, B. 1975b. Sammelergebnisse der von RNDr. A. Hoffer geleiteten Algerien-Expeditionen in den Jahren 1971 und 1972 (Hymenoptera: Apoidea). I. Teil: Megachilidae. Zbornik Slovenskeho Národného Muzea, Prirodne Vedy [Acta Rerum Naturalium Musei Nationalis Slovaci Bratislava] 21:165–190.
- Tkalcù, B. 1978. Beiträge zur Kenntnis der Fauna Afghanistans: *Melitturga* Latr., *Eucera* Scop., Apidae; *Lithurge* Latr., *Stelis* Pz., *Creightonella* Cockll., Megachilidae. Časopis Moravského Muzea 63:153–181.
- Tkalcù, B. 1979. Neue paläarktische Taxa der Familie Megachilidae. Acta Entomologica Bohemoslovaca 76:318–329.
- Tkalcù, B. 1980. Zwei neue Arten der Gattung *Wainia* gen. n. aus Vorderindien. Annotationes Zoologicae et Botanicae, Bratislava, no. 135:1–20.
- Tkalcù, B. 1984a. Neue paläarktische Arten der Gattungen *Pseudoheteriades* und *Archierades* mit Beschreibung von *Hofferia* gen. n. Annotationes Zoologicae et Botanicae, Bratislava, no. 158:1–22.
- Tkalcù, B. 1984b. Systematisches Verzeichnis der westpaläarktischen *Tetralonia*- und *Eucera*-Arten, deren Männchen als Blütenbesucher verschiedener *Ophrys*-Arten festgestellt wurden; mit Beschreibung neuer Taxa. Nova Acta Regiae Societatis Scientiarum Upsaliensis (Ser. V.C)3:57–77.
- Tkalcù, B. 1993a. Quatre nouveaux sous-genres paléarctiques de la tribu des Osmiini. Bulletin de la Société Entomologique de Mulhouse 1993:55–56.
- Tkalcù, B. 1993b. Neue Taxa der Bienen von den Kanarischen Inseln. Pp. 791–858 in H. Hohmann, F. LaRoche, G. Ortega, and J. Barquin, *Bienen, Wespen und Ameisen der Kanarischen Inseln*. Veröffentlichungen aus dem Übersee-Museum Bremen, Naturwissenschaften 12:1–465, pls. I–XII.
- Tkalcù, B. 1995. Die Bienen der Tribus Osmiini der Mongolei. Entomologische Abhandlungen 57:109–147.
- Toro, H. 1976. *Chilimalopsis*, nuevo género chileno de Exomalopsini. Anales del Museo de Historia Natural de Valparaíso 9:73–76.
- Toro, H. 1980. *Austropanurgus* nuevo género de Panurginae chileno. Anales del Museo de Historia Natural de Valparaíso 13:209–212.
- Toro, H. 1989. Contribución al conocimiento de los Panurginae chilenos. Acta Entomologica Chilena 15:229–232.
- Toro, H., and V. Cabezas. 1977. Nuevos géneros y especies de Colletini sudamericanos, primera parte. Anales del Museo de Historia Natural de Valparaíso 10:45–64.
- Toro, H., and V. Cabezas. 1978. Nuevos géneros y especies de Colletini sudamericanos, segunda parte. Anales del Museo de Historia Natural de Valparaíso 11:131–148.
- Toro, H., and M. Herrera. 1980. Las especies chilenas del género *Callonychium* (Andrenidae—Apoidea) y descripción de un nuevo género. Anales del Museo de Historia Natural de Valparaíso 13:213–225.
- Toro, H., and A. Moldenke. 1979. Revisión de los Xeromelissinae chilenos. Anales del Museo de Historia Natural de Valparaíso 12:95–182.
- Toro, H., and L. Ruz. 1972. Revisión del género *Spinoliella*. Anales del Museo de Historia Natural de Valparaíso 5:137–171, 293–295.
- Tosi, A. 1896. Di nuovo genere di Aparia fossile nell'ambra di Sicilia *Meliponorytes succini*, - *M. sicula*. Rivista Italiana di Paleontologia 2:352–356.
- Urban, D. 1989. Dois gêneros novos de Eucerinae neotropicalis. Revista Brasileira de Zoologia 6:117–124.
- Urban, D. 1991. *Ananthidium*, um gênero novo da Dianthidiini neotropical. Revista Brasileira de Zoologia 7:73–78.
- Urban, D. 1993. *Ctenanthidium*, gen. n. de Dianthidiini com quatro espécies novas da América do Sul. Revista Brasileira de Zoologia 8(1991):85–93.
- Urban, D. 1994a. *Tylanthidium*, gen. n. de Anthidiinae da América do Sul (Hymenoptera, Megachilidae) e nota taxonômica. Revista Brasileira de Zoologia 11:277–281.
- Urban, D. 1994b. *Gnathanthidium*, gen. n. de Anthidiinae da América do Sul. Revista Brasileira de Zoologia 9(1992):337–343.
- Urban, D. 1995a. *Moureanthidium*, gen. n. de Dianthidiini do Brasil. Revista Brasileira de Zoologia 12:37–45.
- Urban, D. 1995b. *Grafanthidium*, gen. n. de Dianthidiini do Brasil e uma espécie nova de *Duckeanthidium* Moura & Hurd. Revista Brasileira de Zoologia 12:435–443.
- Urban, D. 1996. *Mielkeanthidium*, gen. n. de Dianthidiini da América do Sul. Revista Brasileira de Zoologia 13:121–125.
- Urban, D., and J. S. Moura. 1993. *Ceburgus longipalpis* gen. esp. n., primeiro representante de Dufoureinae do Brasil. Anais da Academia Brasileira de Ciências 65:101–106.
- Vachal, J. 1897. Éclaircissements sur le genre *Scapter* et description d'une espèce nouvelle de *Dufourea*. Bulletin de la Société Entomologique de France 1897:61–64.
- Vachal, J. 1899. Contributions Hyménoptériques. Annales de la Société Entomologique de France 68:534–539.
- Vachal, J. 1903–1904. Étude sur les *Halictus* d'Amérique. Miscellanea Entomologica (Narbonne) 11:89–104, 121–136 (1903); 12:9–24, 113–128, 137–144 (1904).
- Vachal, J. 1905a. Un nouveau genre d'Hyménoptères, de la famille Apidae. Bulletin de la Société Entomologique de France, 1905:204.
- Vachal, J. 1905b. *Manuelia*, un nouveau genre d'Hyménoptères mellifères. Bulletin de la Société Entomologique de France 1905:25–26.
- Vachal, J. 1909a. Espèces nouvelles ou litigieuses d'Apidae du haut bassin du Parana et des régions contiguës et délimitation d'une nouvelle sous-famille Diphaglossinae. Revue d'Entomologie (Caen) 28:5–64.
- Vachal, J. 1909b. Sur le genre *Melitoma* S. F. et Serv. et sur les genres voisins de la sous-famille Anthophorinae. Annales de la Société Entomologique de France 78:5–14.
- Vecht, J. van der. 1952. A preliminary revision of the oriental species of the genus *Ceratma*. Zoologische Verhandelingen No. 16:ii + 1–85.
- Verhoeff, C. 1890. Ein Beitrag zur deutschen Hymenopteren-Fauna. Entomologische Nachrichten 16:321–335.
- Viereck, H. L. 1904a. A bee visitor of *Pontederia* (pickerel-weed). Entomological News 15:244–246.
- Viereck, H. L. 1904b. American genera of the bee family Dufoureidae. Entomological News 15:261–262.
- Viereck, H. L. 1909. Descriptions of new Hymenoptera. Proceedings of the Entomological Society of Washington 11:42–51.
- Viereck, H. L. 1912. Contributions to our knowledge of bees and ichneumon-flies, including the descriptions of twenty-one new genera and fifth-seven new species of ichneumon-flies. Proceedings of the United States National Museum 42:613–648.
- Viereck, H. L. 1916. The Hymenoptera, or Wasp-like Insects of Connecticut. Connecticut State Geological and Natural History Survey Bulletin 22:1–824, pls. I–X.
- Viereck, H. L. 1917. Contributions to our knowledge of the bee genus *Perdita* Smith. Bulletin of the American Museum of Natural History 37:241–242.
- Viereck, H. L. 1922. New bees of the genus *Andrena*. Occasional Papers of the Boston Society of Natural History 5:35–45, pl. 4.
- Viereck, H. L. 1924. Prodromus of *Andrena*, a genus of bees. Canadian Entomologist 56:19–24.
- Vitzthum, H. G. 1930. Acarologische Beobachtungen (14 Reihe). Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere 59:281–350.
- Vogt, O. 1911. Studien über das Artproblem. Mitteilung 2, Teil 2. Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin 1911:31–74.

- Walker, K. L. 1986. Revision of the Australian species of the genus *Homalictus* Cockerell. Memoirs of the Museum of Victoria 47:105–200.
- Warncke, K. 1968. Die untergattungen der westpaläarktischen Bienengattung *Andrena* F. Memórias e Estudos do Museu Zoológico da Universidade de Coimbra, no. 307:1–111.
- Warncke, K. 1970. Beitrag zur Systematik und Verbreitung der Bienengattung *Prosopis* F. in der Westpaläarktis. Bulletin des Recherches Agronomiques de Gembloux (NS)5:745–768.
- Warncke, K. 1972. Westpaläarktische Bienen der Unterfamilie Panurginae. Polskie Pismo Entomologiczne 42:53–108.
- Warncke, K. 1974. Die Sandbienen der Türkei, I Teil. Mitteilungen der Münchner Entomologischen Gesellschaft 64:81–116.
- Warncke, K. 1975a. Die Sandbienen der Türkei, Teil B. Mitteilungen der Münchner Entomologischen Gesellschaft 65:29–102.
- Warncke, K. 1975b. Beitrag zur Systematik und Verbreitung der Furchenbienen in der Türkei (Hymenoptera, Apoidea, *Halictus*). Polskie Pismo Entomologiczne 45:81–123.
- Warncke, K. 1976. Zur Systematik und Verbreitung der Bienengattung *Nomia* Latr. in der Westpaläarktis und dem turkestanischen Becken. Reichenbachia 16:93–120.
- Warncke, K. 1977. Ideen zum natürlichen System der Bienen. Mitteilungen der Münchner Entomologischen Gesellschaft 67:39–63.
- Warncke, K. 1978. Über die westpaläarktischen Arten der Bienengattung *Colletes* Latr. Polskie Pismo Entomologiczne 48:329–370.
- Warncke, K. 1979. Beiträge zur Bienenfauna des Iran: 3. Die Gattung *Rophites* Spin., mit einer revision des Westpaläarktischen arten der Bienengattung *Rophites* Spin. Bollettino del Museo Civico di Storia Naturale di Venezia 30:111–155.
- Warncke, K. 1980. Die bienengattungen *Nomia* und *Systropha* im Iran mit ergänzungen zu den *Nomia*-Arten der Westpaläarktis. Linzer Biologische Beiträge 12:363–384.
- Warncke, K. 1981. Beitrag zur Bienenfauna des Iran 14. Die gattung *Halictus* Latr., mit Bemerkungen über bekannte und neue *Halictus*-Arten in der Westpaläarktis und Zentralasien. Bollettino del Museo Civico di Storia Naturale di Venezia 32:67–166.
- Warncke, K. 1983. Zur Kenntnis der Bienengattung *Pastes* Jurine, 1807, in der Westpaläarktis. Entomofauna 4:261–347.
- Warncke, K. 1985. Beiträge zur Bienenfauna des Iran 19–20. Die Gattungen *Panurgus* Pz. und *Meliturgula* Fr. Bollettino del Museo Civico di Storia Naturale di Venezia 34(1983):221–235.
- Warncke, K. 1988a. Die Bienengattung *Osmia* Panzer, 1806, ihre Systematik in der Westpaläarktis und ihre Verbreitung in der Türkei. 2 und 3: Die Untergattungen *Tergosmia* und *Exosmia*. Entomofauna 9:389–403.
- Warncke, K. 1988b. Die Bienengattung *Osmia* Panzer, 1806, ihre Systematik in der Westpaläarktis und ihre Verbreitung in der Türkei. 1: Untergattung *Helicosmia* Thomson, 1872. Entomofauna 9:1–48.
- Warncke, K. 1990. Die Bienengattung *Osmia* Panzer, 1806, ihre Systematik in der Westpaläarktis und ihre Verbreitung in der Türkei. 4. Die Untergattung *Platosmia* subgen. nov. Entomofauna 11:481–495.
- Warncke, K. 1991a. Die Bienengattung *Osmia* Panzer, 1906, ihre Systematik in der Westpaläarktis und ihre Verbreitung in der Türkei. 5. Die Untergattung *Pentadentosmia* subg. nov. Entomofauna 12:13–32.
- Warncke, K. 1991b. Die Bienengattung *Osmia* Panzer, 1906, ihre Systematik in der Westpaläarktis und ihre Verbreitung in der Türkei. 9. Die Untergattung *Aniosmia* subg. n. Linzer Biologische Beiträge 23:307–336.
- Warncke, K. 1991c. Die Bienengattung *Osmia* Panzer, 1906, ihre Systematik in der Westpaläarktis und ihre Verbreitung in der Türkei. 7. Die Untergattung *Foveosmia* nov. Linzer Biologische Beiträge 23:267–281.
- Westwood, J. O. 1835. [Characters of new genera and species of hymenopterous insects.] Proceedings of the Zoological Society of London 3:51–54, 68–72.
- Westwood, J. O. 1838. Description of a new genus of exotic bees. Transactions of the Entomological Society of London 2:112–113.
- Westwood, J. O. 1840a. Synopsis of the genera of British insects. Pp. 1–154 in *An Introduction to the Modern Classification of Insects....* Vols. 1, 2, 1838–1840. London: Longman et al. [Commission Direction 63 (1957) gives dates for the parts of this work; the parts of the Synopsis on bees all appeared in 1840.]
- Westwood, J. O. 1840b. In J. Duncan, *The Natural History of the Bees*, in W. Jardine (ed.), *The Naturalists' Library*. Vol. 26. Entomology, Vol. 6. Edinburgh: Lizars. viii + 17–301, 30 pls.
- Westwood, J. O. 1875. Descriptions of some new species of short-tongued bees belonging to the genus *Nomia*. Transactions of the Entomological Society of London 1875:207–222, pls. IV, V.
- Williams, P. H. 1985. A preliminary cladistic investigation of relationships among the bumble bees. Systematic Entomology 10:239–255.
- Williams, P. H. 1991. The bumblebees of the Kashmir Himalaya. Bulletin of the British Museum (Natural History), Entomology 60:1–204.
- Williams, P. H. 1994. Phylogenetic relationships among bumblebees (*Bombus* Latr.): A reappraisal of morphological evidence. Systematic Entomology 19:327–344.
- Wu, Y.-r. 1982. Description of a new subgenus of *Nomia*. Zoological Research 3:275–280 [in Chinese, English summary].
- Wu, Y.-r. 1985. A study on the genus *Rhopalomelissa* of China with descriptions of new subgenus and new species. Zoological Research 6:57–68 [in Chinese, English summary].
- Yarrow, I. H. H. 1971. The author and date of certain subgeneric names in *Bombus*. Journal of Entomology (B)40:27–29.
- Yasumatsu, K., and Y. Hirashima. 1950. Revision of the genus *Osmia* of Japan and Korea. Mushi 21:1–18, pls. 1–3.
- Zanden, G. van der. 1988. Beitrag zur Systematik und Nomenklature der paläarktischen Osmiini, mit Angaben über ihre Verbreitung. Zoologische Mededelingen 62:113–133.
- Zanden, G. van der. 1989. Neue oder wenig bekannte Arten und Unterarten der paläarktischen Megachiliden. Entomologische Abhandlungen (Dresden) 53:71–86.
- Zanden, G. van der. 1991. Neue oder wenig bekannte Arten der Osmiini aus dem paläarktischen Gebiet. Reichenbachia 28:163–171.
- Zanden, G. van der. 1994. Neue Arten und Unterarten, eine neue Untergattung und einige neue Fälle von Synonymie der paläarktischen Bauchsämler. Reichenbachia 30:167–172.
- Zavortink, T. J. 1972. A new subgenus and species of *Megandrena* from Nevada, with notes on its foraging and mating behavior. Proceedings of the Entomological Society of Washington 74:61–75.
- Zavortink, T. J. 1975. A new genus and species of eucerine bee from North America. Proceedings of the California Academy of Sciences (4)40:231–242.
- Zeuner, F. E., and F. J. Manning. 1976. A monograph on fossil bees. Bulletin of the British Museum (Natural History), Geology 27:149–268, pls. 1–4.

ADDENDUM

After this paper was in proof, Dr. Donald B. Baker (University Museum, Oxford) kindly sent me commentaries on certain dates of publication. Whereas I have usually used widely accepted dates, Dr. Baker has indicated that the following are correct:

Author, date	Corrected Date
Agassiz, L. 1846.	1847
Guérin-Méneville, F. E. 1830.	pp. 1–24, 1830; pp. 25–471, 1831
Heer, O. 1850.	1849
Lepeletier de S. Fargeau, A. L. M. 1836.	1835
Morawitz, F. 1873a.	1874
Radoszkowski, O. 1868.	1867
Schenck, A. 1866.	1867
Schenck, A. 1973.	1874
Smith, F. 1858.	pp. 42–88 and pls. 1, 2, 1857; pp. 89–180, 1858
Spinola, M. 1838.	1839
Vachal, J. 1899.	1900

DATE DUE

DEMCO, INC. 38-2931

OL566 .M43 1997

Gomby group names of bees and suppl

Harvard MCZ Library

BKY3563



3 2044 062 458 666

PUBLICATIONS OF THE NATURAL HISTORY MUSEUM, THE UNIVERSITY OF KANSAS

The University of Kansas Publications, Museum of Natural History, beginning with Volume 1 in 1946, was discontinued with Volume 20 in 1971. Shorter research papers formerly published in the above series were published as The University of Kansas Natural History Museum Occasional Papers until Number 180 in December 1996. The Miscellaneous Publications of The University of Kansas Natural History Museum began with Number 1 in 1946 and ended with Number 68 in February 1996. Monographs of The University of Kansas Natural History Museum were initiated in 1970 and discontinued with Number 8 in 1992. The University of Kansas Science Bulletin, beginning with Volume 1 in 1902, was discontinued with Volume 55 in 1996. The foregoing publication series are now combined in a new series entitled Scientific Papers, Natural History Museum, The University of Kansas, begun with Number 1 in 1997. Special Publications began in 1976 and continue as an outlet for longer contributions and are available by purchase only. All manuscripts are subject to critical review by intra- and extramural specialists; final acceptance is at the discretion of the editor.

The publication is printed on acid-free paper. Publications are composed using Microsoft Word® and Adobe PageMaker® on a Macintosh computer and are printed by The University of Kansas Printing Service.

Institutional libraries interested in exchanging publications may obtain the Scientific Papers, Natural History Museum, The University of Kansas, by addressing the Exchange Librarian, The University of Kansas Libraries, Lawrence, Kansas 66045-2800, USA. Available back issues of The University of Kansas Science Bulletin may be purchased from the Library Sales Section, Retrieval Services Department, The University of Kansas Libraries, Lawrence, Kansas 66045-2800, USA. Available issues of former publication series, Scientific Papers, and Special Publications of the Natural History Museum can be purchased from the Office of Publications, Natural History Museum, The University of Kansas, Lawrence, Kansas 66045-2454, USA. Purchasing information can be obtained by calling (913) 864-4450, fax (913) 864-5335, or e-mail (huerter@falcon.cc.ukans.edu). VISA and MasterCard accepted; include expiration date.

EDITOR OF SCIENTIFIC PUBLICATIONS: William E. Duellman

PRINTED BY
THE UNIVERSITY OF KANSAS PRINTING SERVICES
LAWRENCE, KANSAS